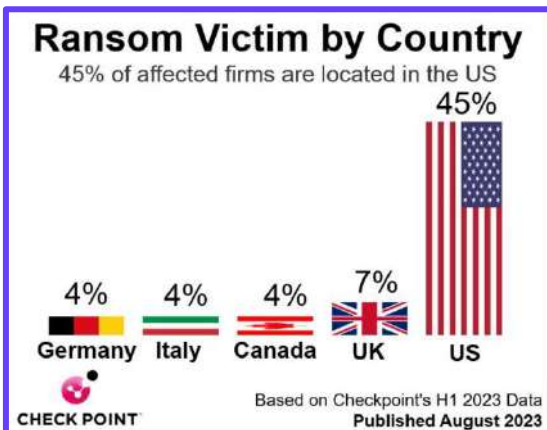
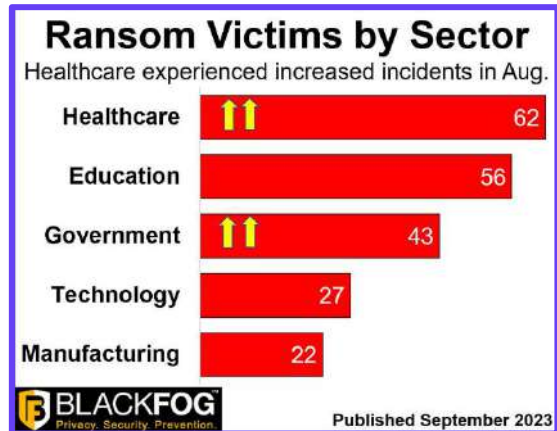
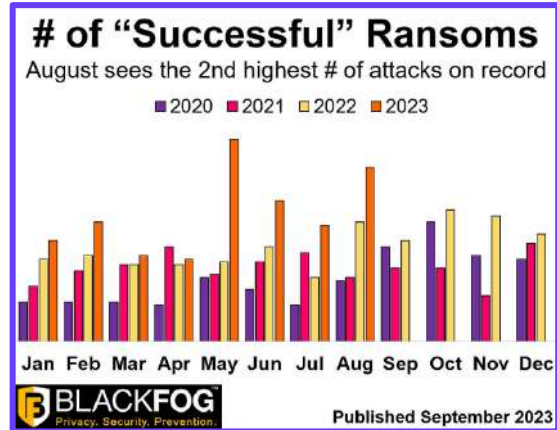
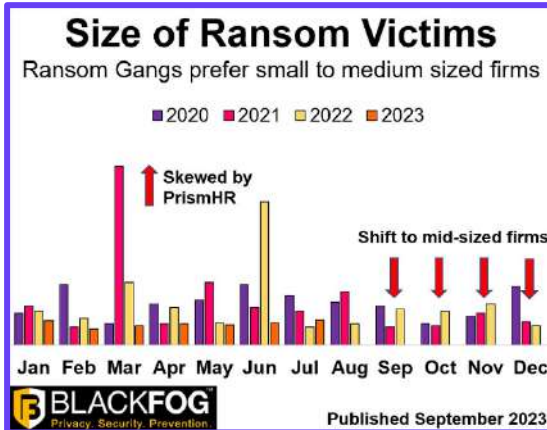


The Best Cyber Insights of 2023

Click each image to see each report in full. All were published in month to Sept 2023



The Best Cyber Insights of 2023

Click each image to see each report in full. All were published in month to Sept 2023

Single Vulnerabilities Impact

Vendor's single vulnerabilities leading to breaches

Known Exploited Vulnerabilities Catalog
Published September 2023

CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY

Cyber Security Visibility

62% of security teams operate in **Limited Visibility**

62% of security teams operate with limited visibility across their environment.

CYBERARK* The Identity Security Company | 2,300 Global Security Decision Makers
Published September 2023

Ransomware Victims

89% of firms fell victim to one ransomware attack

89% indicate their organizations were targeted by at least one ransomware attack in the last 12 months (97% for healthcare, the most-targeted sector).

CYBERARK* The Identity Security Company | 2,300 Global Security Decision Makers
Published September 2023

AI Tools Cyber Impact

93% expect negative cyber impacts from AI tools

93% expect negative cyber impacts from AI tools in 2023.

CYBERARK* The Identity Security Company | 2,300 Global Security Decision Makers
Published September 2023

Clustered Vulnerabilities

Tech giants' clustered vulnerabilities added to KEV

Microsoft	15
Apple	10
Samsung	7
Zyxel	5
Cisco	3

Known Exploited Vulnerabilities Catalog
Published September 2023

CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY

Top Ransomware Target

232 of Ransomware Activities targeted the USA

USA	232
Germany	27
UK	21
France	14
Italy	12

CYFIRMA RECORDING THREATS | Analysis of Aug 2023 Ransom Activities
Published September 2023

Top Ransomware Target

79 of Ransomware targeted Manufacturing Industry

Manufacturing	79
Telecom	60
IT	44
Banking	43
FMCG	39

CYFIRMA RECORDING THREATS | Analysis of Aug 2023 Ransom Activities
Published September 2023

Top Ransomware Group

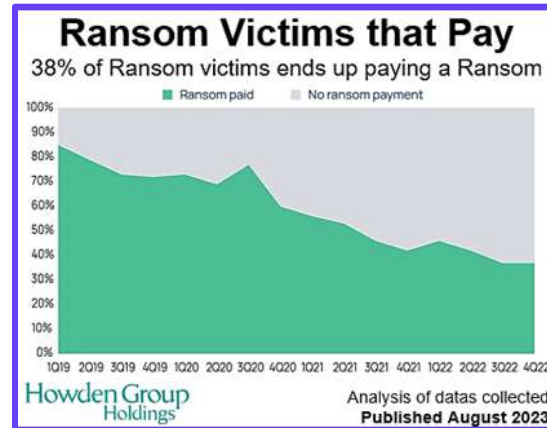
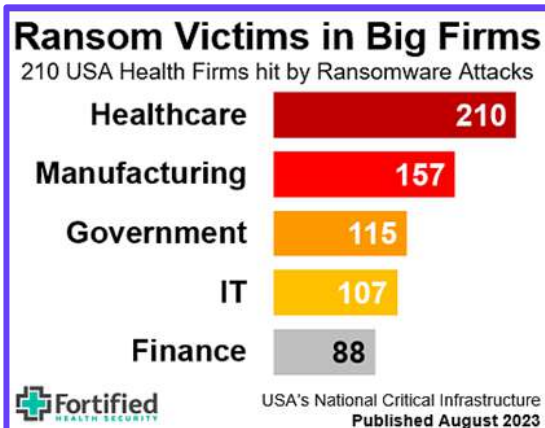
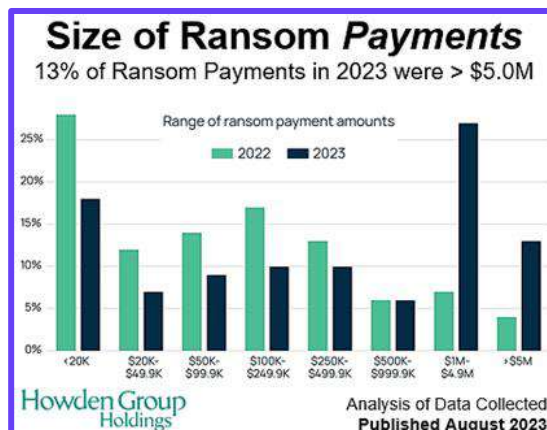
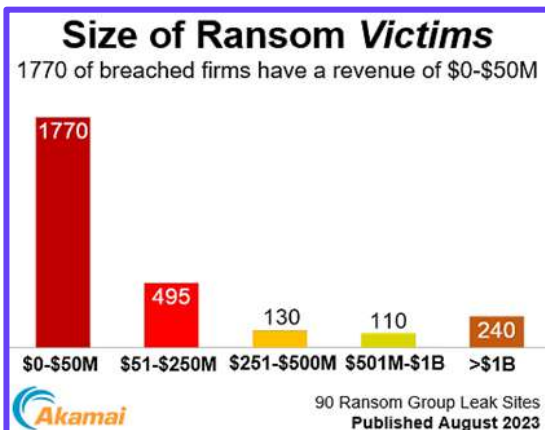
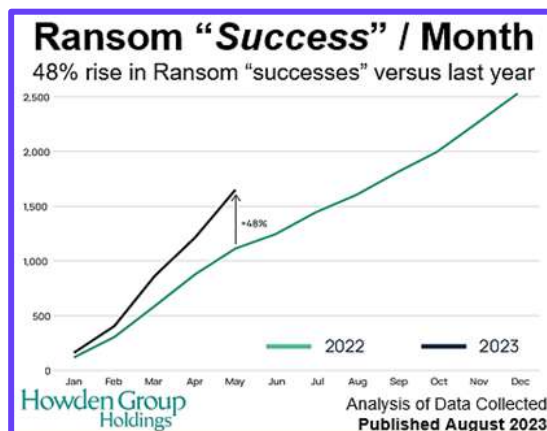
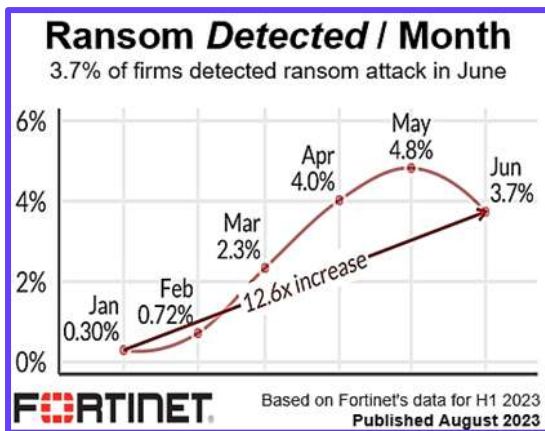
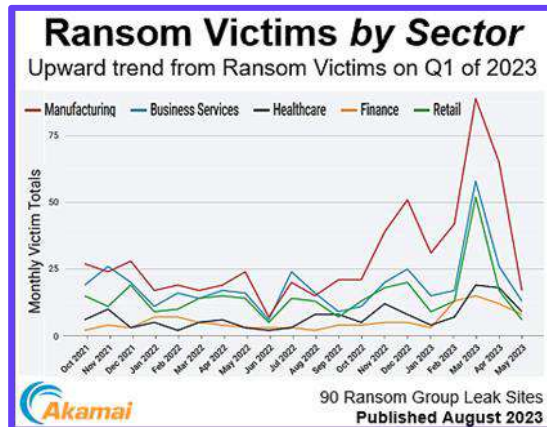
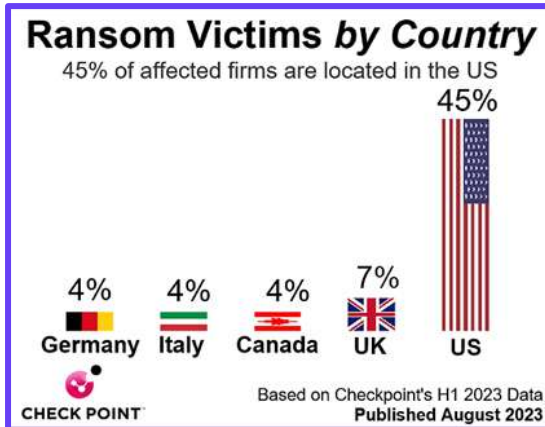
180 of Ransom Incidents are caused by CI0p Gang

CI0p	180
LockBit3	112
Cloak	33
AlphV	29
Akira	21

CYFIRMA RECORDING THREATS | Analysis of Aug 2023 Ransom Activities
Published September 2023

The Best Cyber Insights of 2023

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Cyber Insights: *Cyber in the Boardroom*

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What Best CISOs do Best

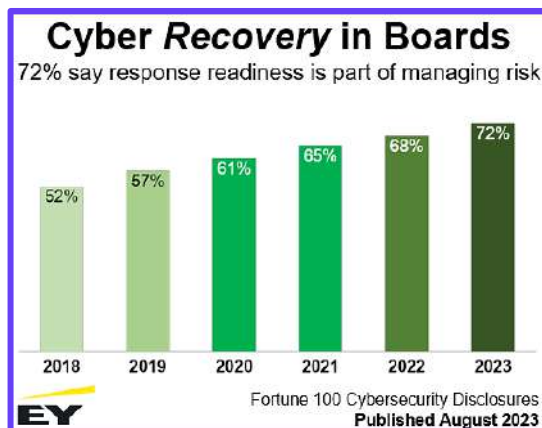
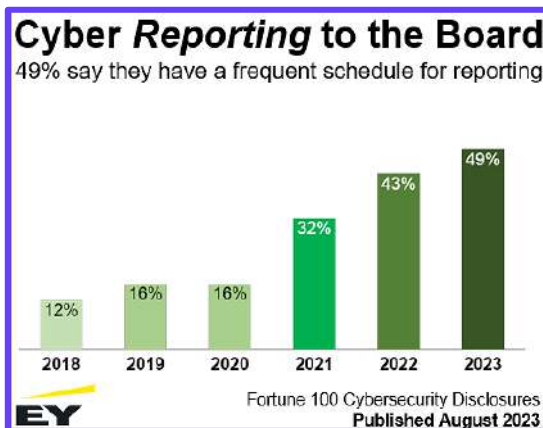
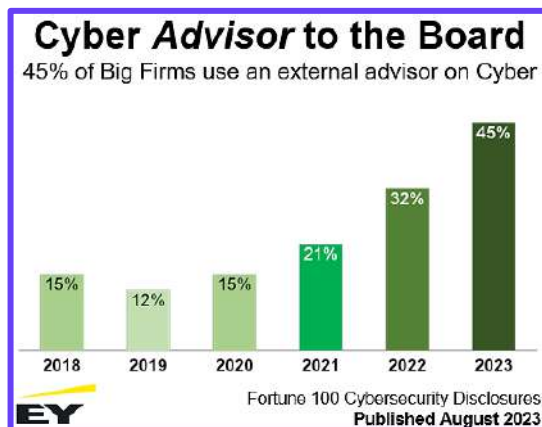
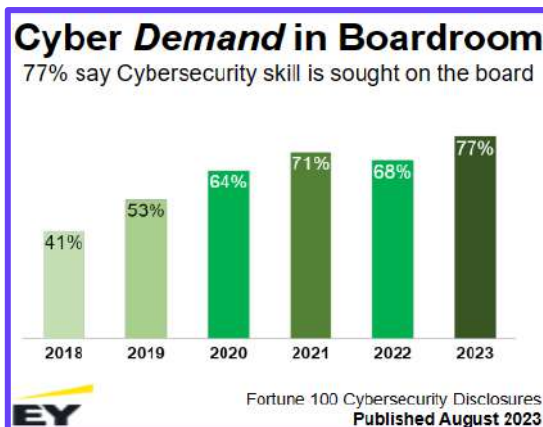
Top Five "Game Changing Behaviours" for CISOs

- #1 Define Risk Appetite with Board
- #2 Invest in Personal Development
- #3 Build rapport with senior Execs
- #4 Discuss evolving best practices
- #5 Proactively secure new Tech

Gartner Comparison of 227 CISOs
Published 28th August 2023

NIST Framework for Cybersecurity, v2.0

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE
Published Aug '23



NACD Cyber-Risk Guide

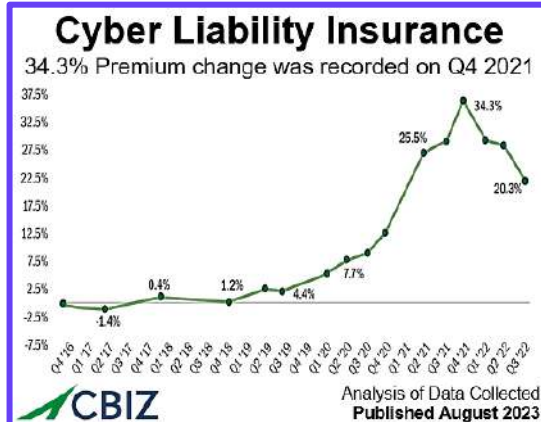
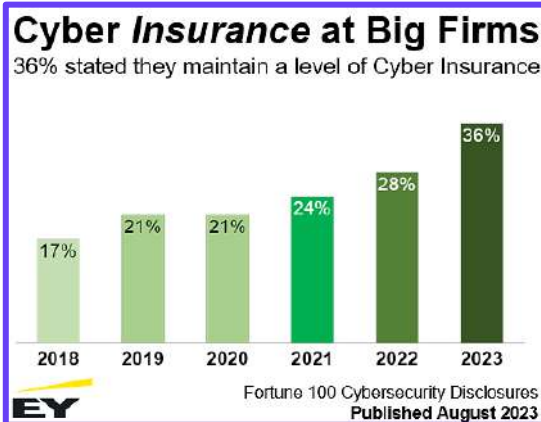
Cyber Resilience For Leaders
Published August 2023

The Cost of Cyber Defense

CIS Center for Internet Security
CIS Controls
Published Aug '23

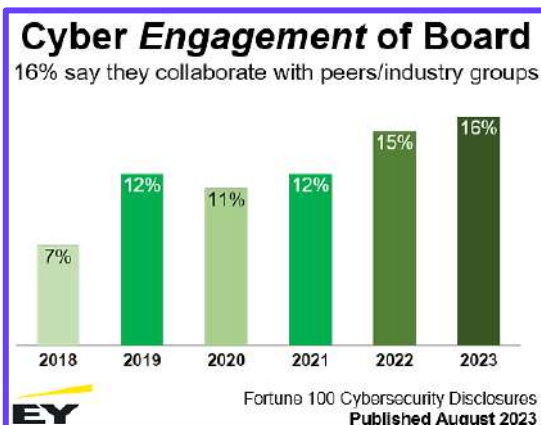
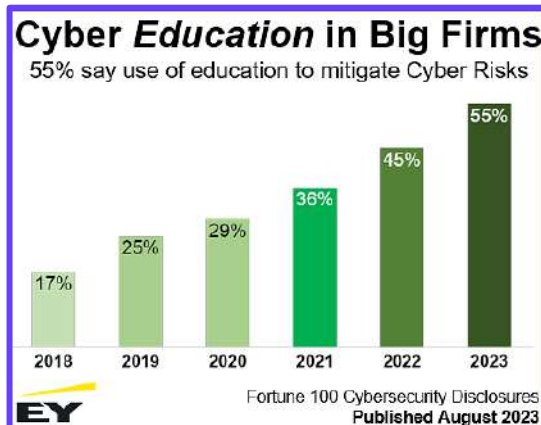
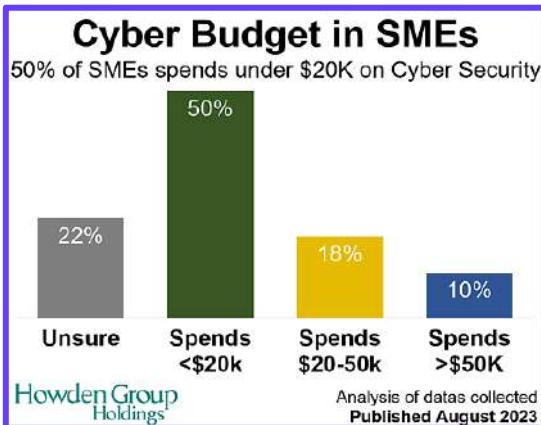
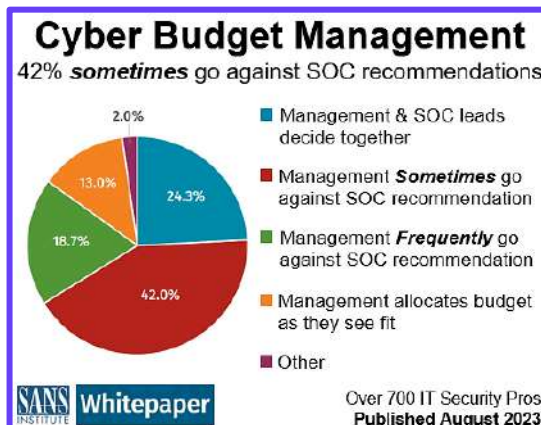
Cyber Insights: *Cyber in the Boardroom 2*

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AON Cyber Risk Insurance

Published August 2022 Get Better Cyber Coverage

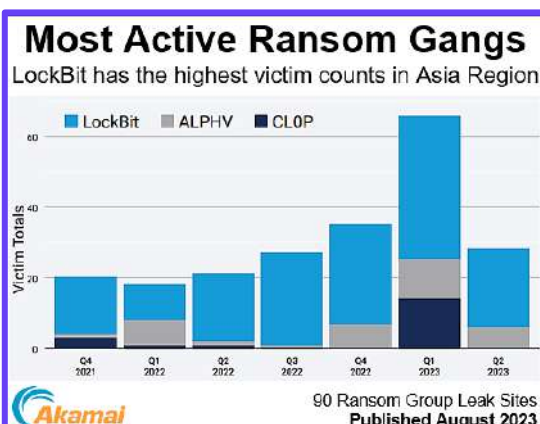
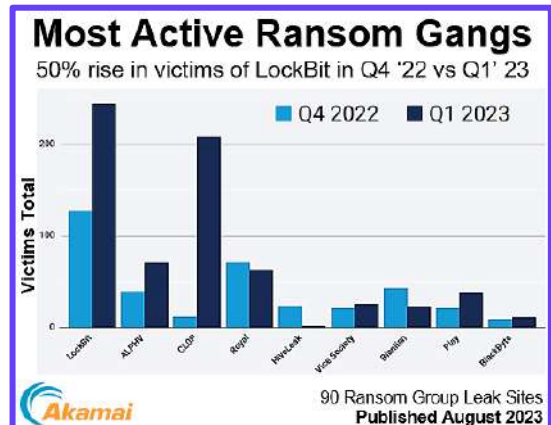
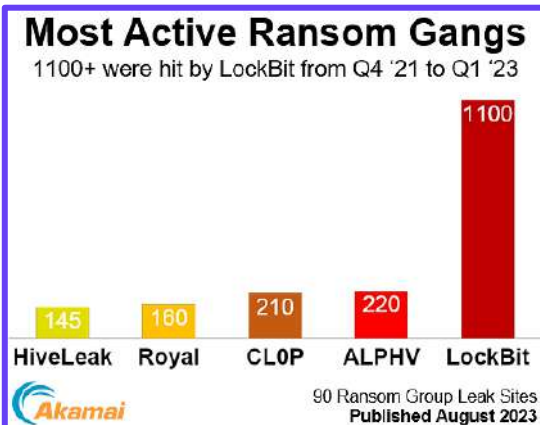
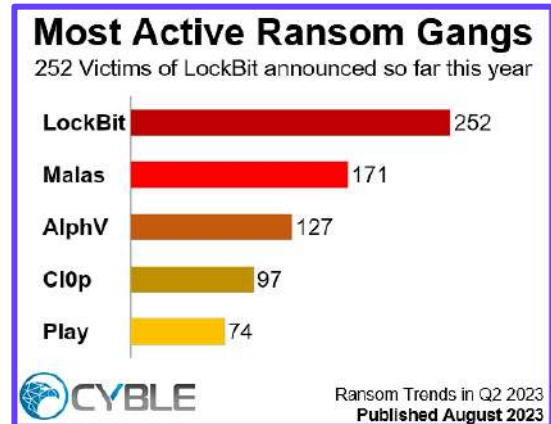
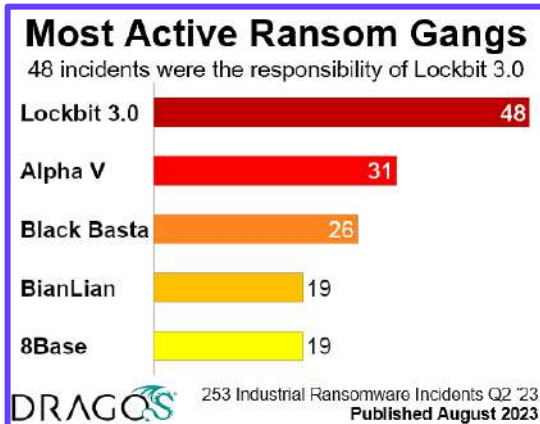
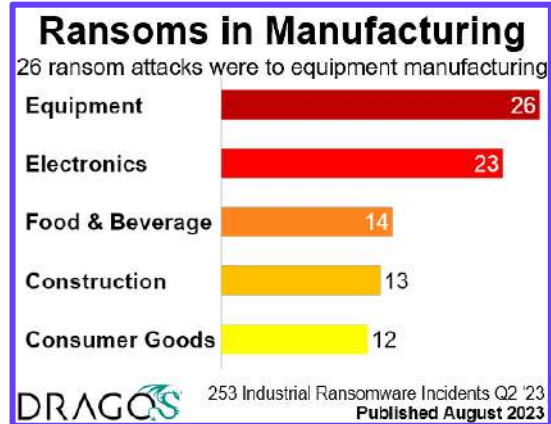


University of BRISTOL Cyber Incident Management

Published Aug '23 Guide to Develop Incident Response

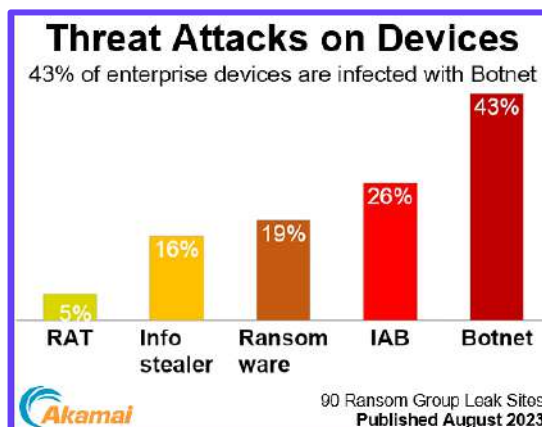
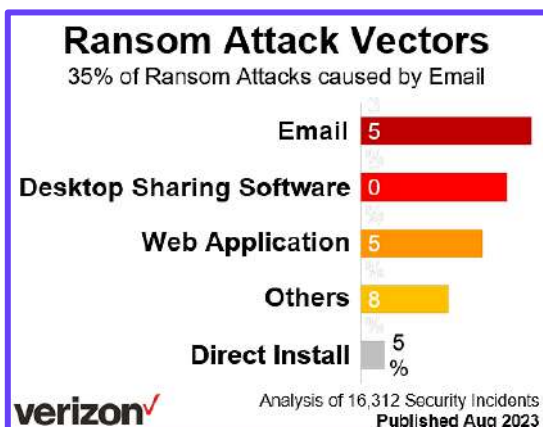
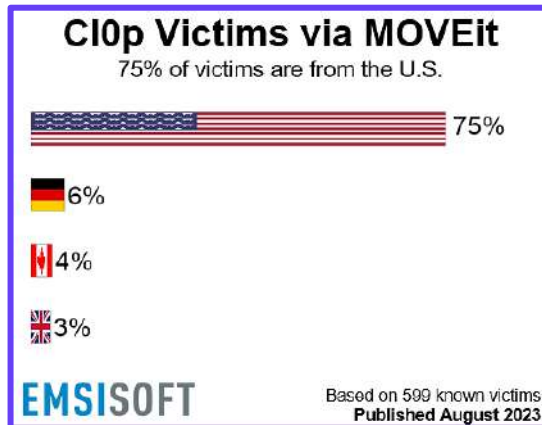
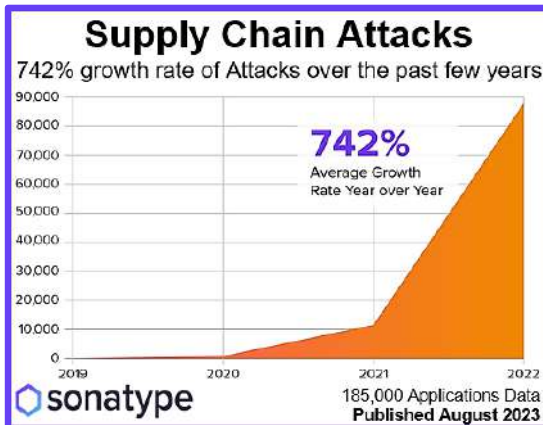
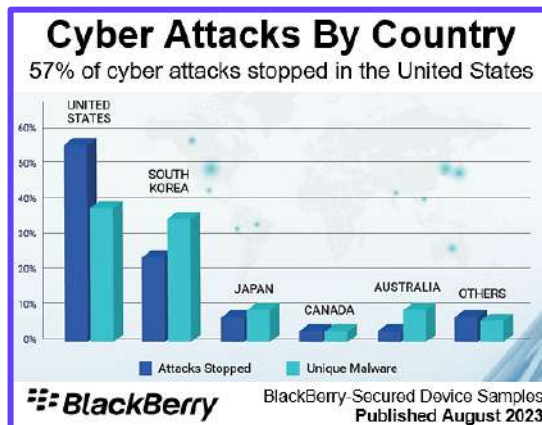
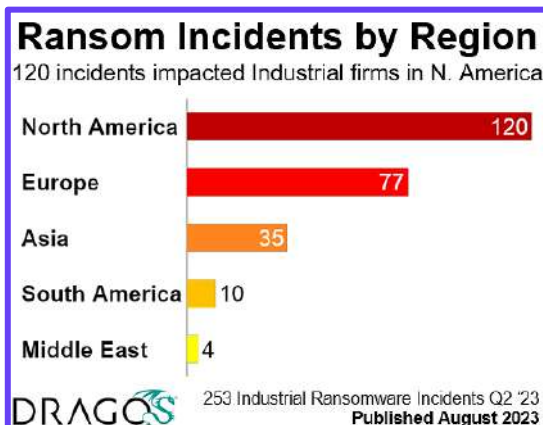
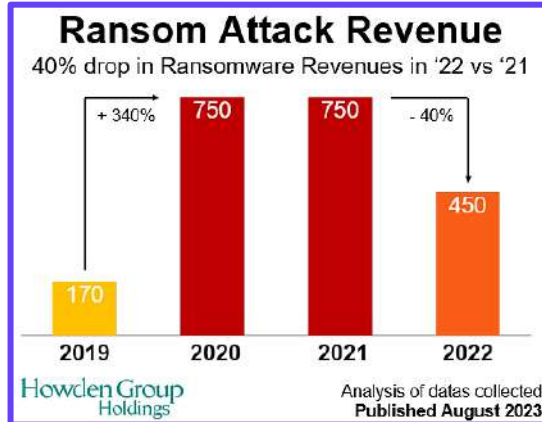
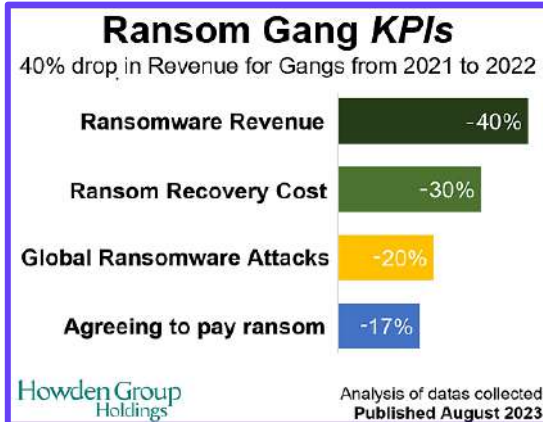
Cyber Insights: Ransomware Numbers

Click each image to see each report in full. All were published in month to Aug 2023



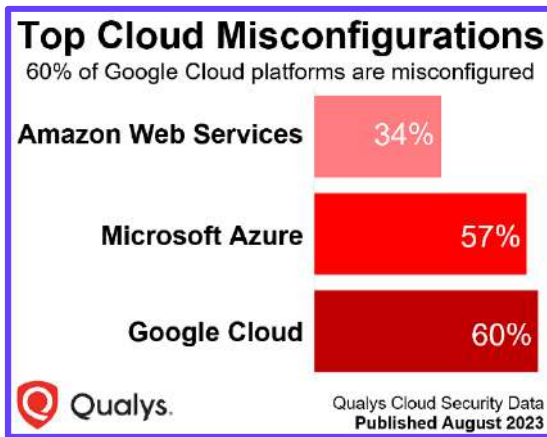
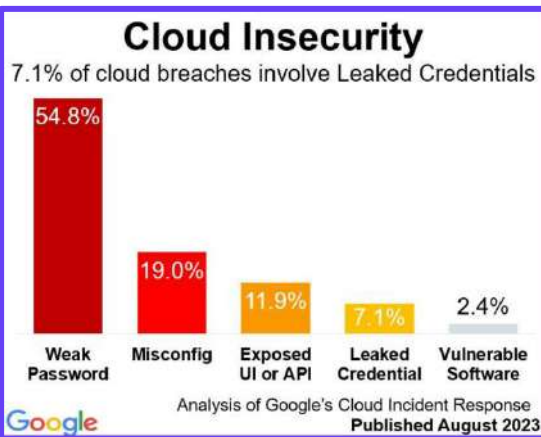
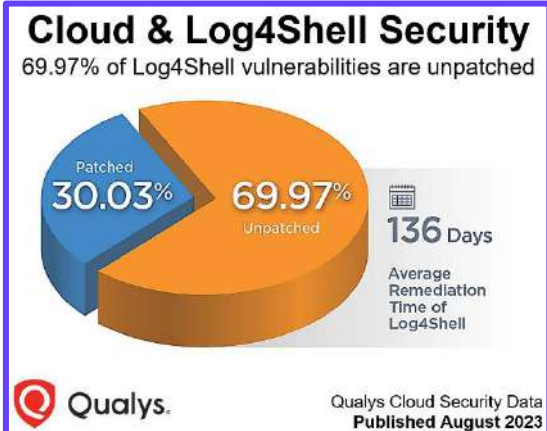
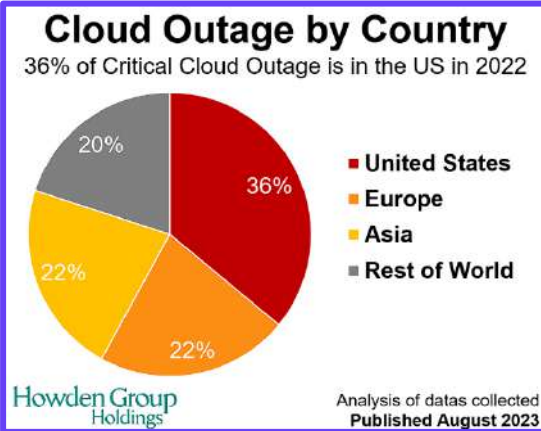
Cyber Insights: *Ransomware Numbers 2*

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Cyber Insights: *Cloud and Shadow Risks*

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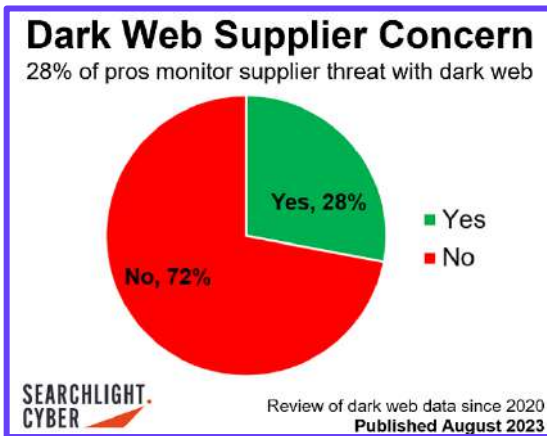
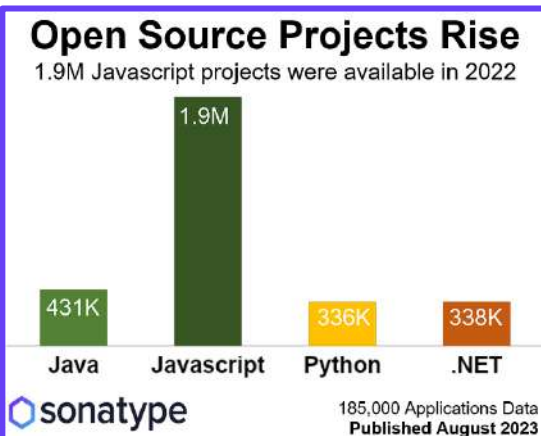
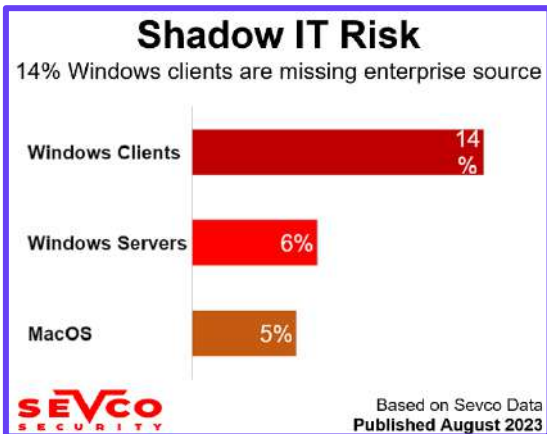


Shadow Cloud Services

NCSC guide on new shadow IT threats

- #1 = Unauthorised Comm Tools
- #2 = Unauthorised Device Network
- #3 = 3rd Party Tools Gathering Data
- #4 = Unmanaged Cloud Tenancies
- #5 = Project Management Tool

National Cyber Security Centre
NCSC guide on new shadow IT threats
Published August 2023



Cyber Insights: AI & Bots

Click each image to see each report in full. All were published in August 2023

CSA cloud security alliance
Published Aug '23

Security Implications of ChatGPT AI

Ransom Payments

12% of victims paid ransom between \$1 - \$5 mil

Within Year	50%
Currently	46%
Last Year	10%

Osterman Research
Based on ORWP Research
Published August 2023

AI Against Email Threats

45% say AI can help detect email threats to staff

Suppliers	45%
Staff	45%
Malware Emails	42%
Spear Phish	41%
Phishing URLs	31%

Osterman Research
Based on ORWP Research
Published August 2023

Impact of Ransom Breach

32% of victims in Media "lost a lot of revenue"

No	69.4%
Partially	22.8%
Yes	7.9%

DATA DOME
Over 2,420 UK Websites
Published August 2023

Impact of Ransom Breach

68% of victim firms suffer data encryption

No	75.5%
Partially	20.6%
Yes	3.9%

DATA DOME
Over 2,420 UK Websites
Published August 2023

Bot Cyber Defense in the UK

57% of bots blocked CAPTCHAs + Anti bot tools

No	57.0%
Partially	26.2%
Yes	16.7%

DATA DOME
Over 2,420 UK Websites
Published August 2023

Known Ransom Victims Q2

38% increase in victim volume since Q1 2023

Category	Protected	Partially Protected	Unprotected
Classified Ads	~10%	~15%	~75%
E-Commerce	~10%	~15%	~75%
Media	~10%	~15%	~75%
Service	~10%	~15%	~75%
Bank & Insurance	~10%	~15%	~75%
Couponing & Ticketing	~10%	~15%	~75%
Community	~10%	~15%	~75%
Gambling	~10%	~15%	~75%

DATA DOME
Over 2,420 UK Websites
Published August 2023

Bot Cyber Defense in the UK

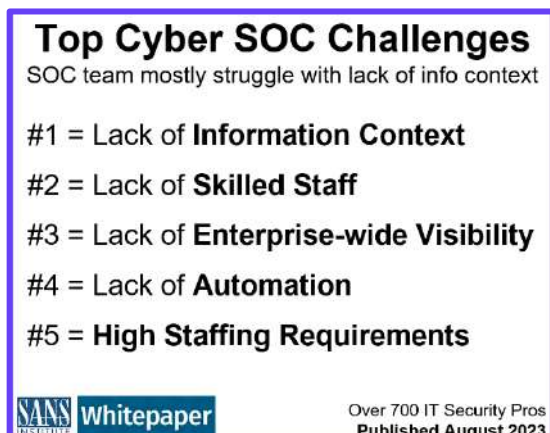
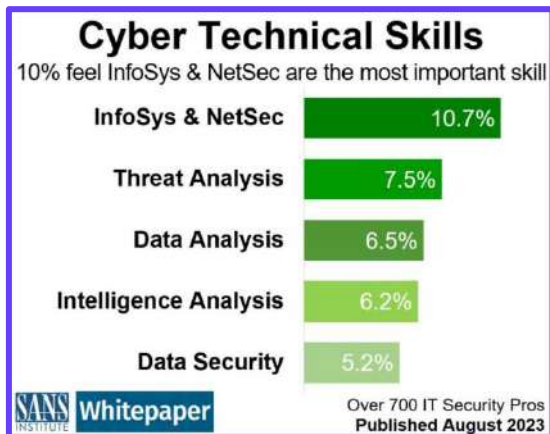
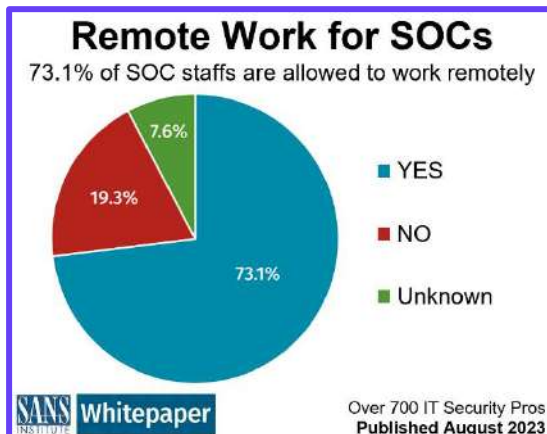
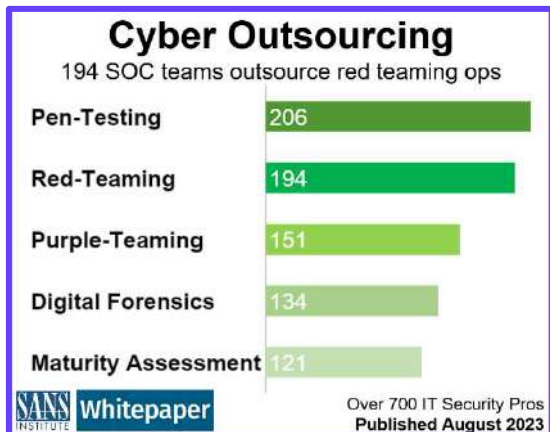
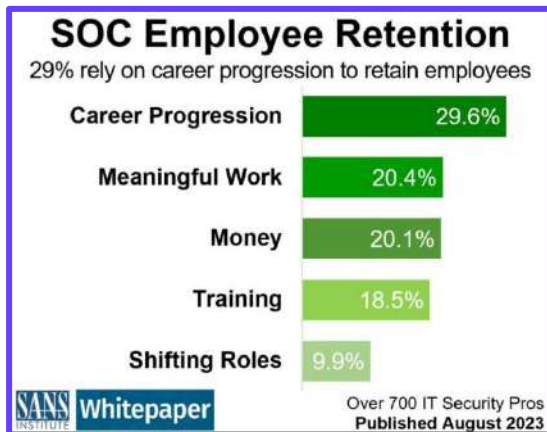
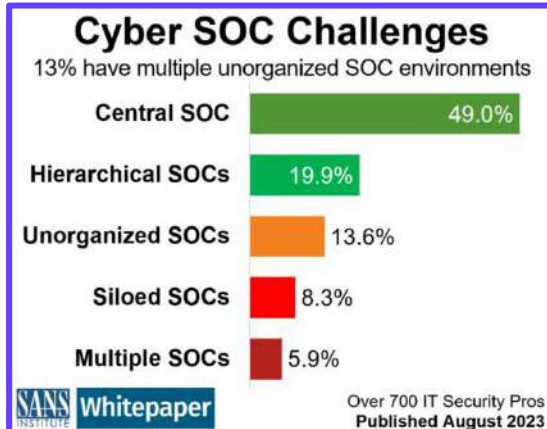
76% of websites do not have a bot detection tool

No	75.5%
Yes	24.5%

DATA DOME
Over 2,420 UK Websites
Published August 2023

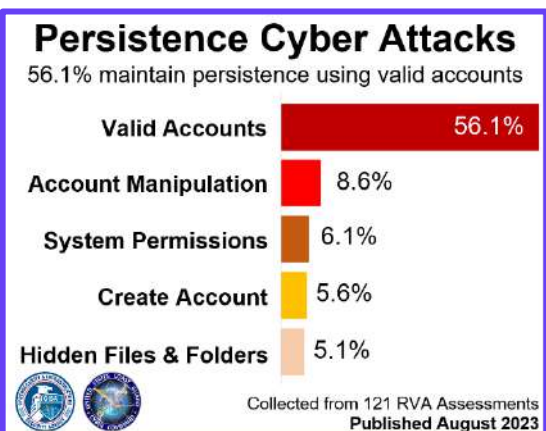
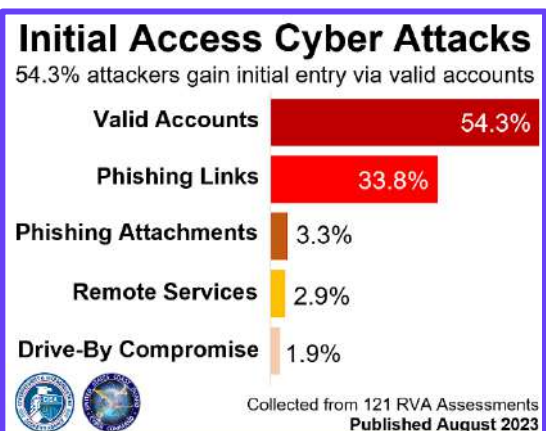
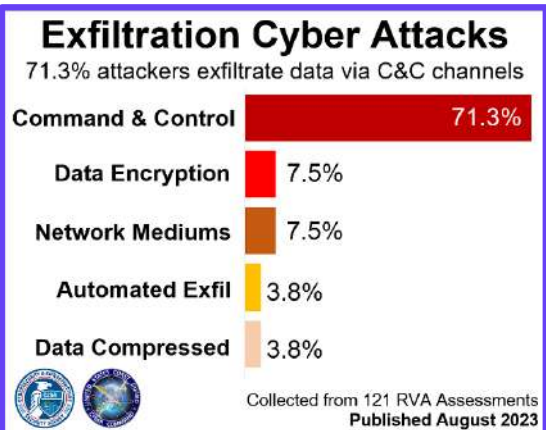
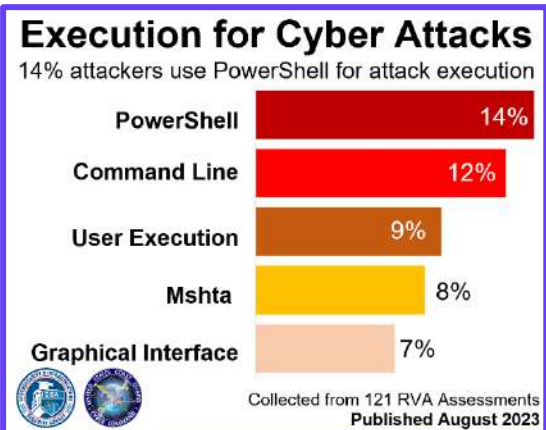
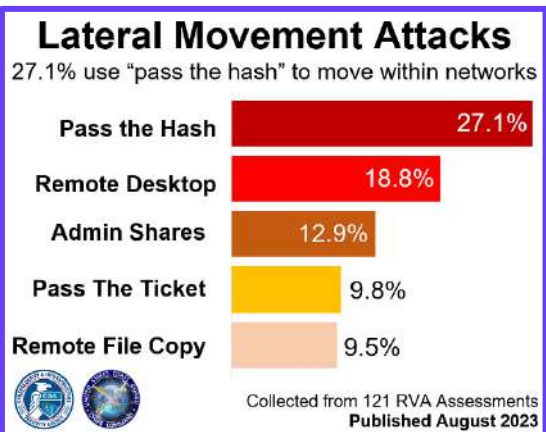
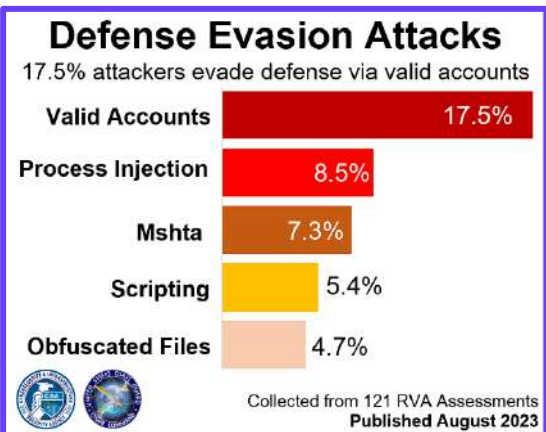
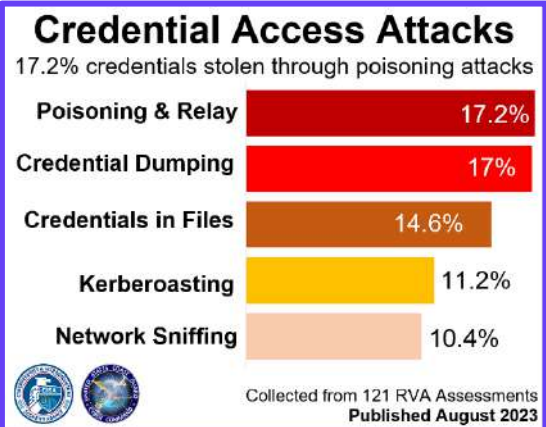
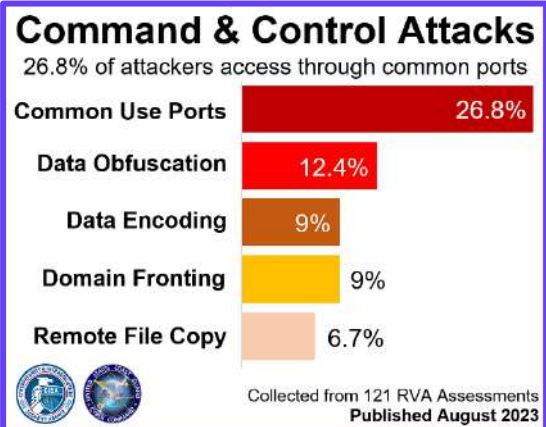
Cyber Insights: SOCs

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Cyber Insights: *Cyber Attacks*

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Cyber Insights: *Cyber Attacks 2*

Click each image to see each report in full. All were published in July 2023

Top Cyber-Attack Targets

Finance Institutions most targeted

- #1 – Financial Institutions
- #2 – Healthcare Services
- #3 – Healthcare Equipment
- #4 – Government / Public Entities
- #5 – Critical infrastructure

BlackBerry BlackBerry Telemetry
Published August 2023

Biggest Risks to Firms

34% says that Cyber Incidents are the biggest risk

Cyber Incidents	34%
Business Interruption	34%
Macroeconomic Development	25%
Energy Crisis	22%
Natural Catastrophy	19%

Howden Group Holdings Analysis of datas collected
Published August 2023

Discovery for Cyber Attacks

10.1% attackers use network shares for discovery

Accounts	10.10%
Network Shares	10.10%
Network Services	9.60%
File & Directory	9.40%
Password Policy	8.20%

Collected from 121 RVA Assessments
Published August 2023

Privilege Escalation Attacks

42.9% escalate privileges using valid accounts

Valid Accounts	42.9%
Process Injection	19.3%
Token Manipulation	13.1%
Privilege Escalation	6.2%
Weak Permissions	3.5%

Collected from 121 RVA Assessments
Published August 2023

Top 5 Attack Vector Types

Email Body Links Now Top Cyberattack Method

- #1 – Phishing Hyperlinks in Email
- #2 – Domain Spoofing
- #3 – PDF Attachments
- #4 – HTML Attachments
- #5 – Branded Phishing Emails

KnowBe4 KnowBe4 Phishing Security Tests
Published August 2023

Number of Threats Stopped

1.5 million cyberattacks stopped in 3 months

BlackBerry BlackBerry-Secured Device Samples
Published August 2023

CISOs Dark Web Concern

77% of CISOs interested in suppliers being targeted

Yes	77%
No	33%

SEARCHLIGHT.CYBER Review of dark web data since 2020
Published August 2023

Cyber Attacks Per Day

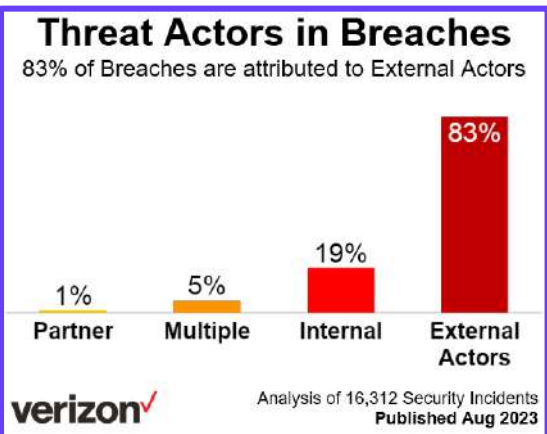
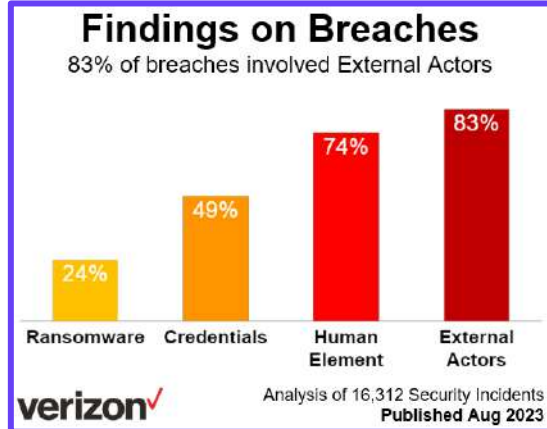
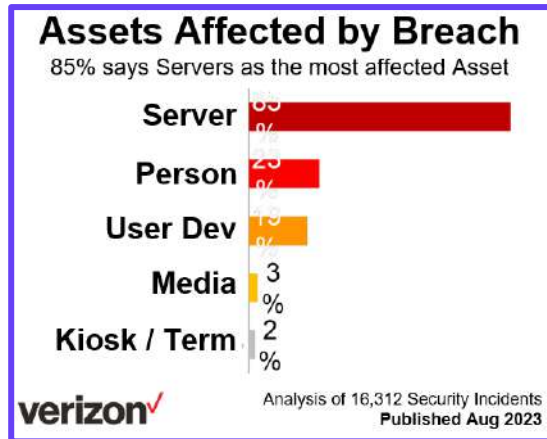
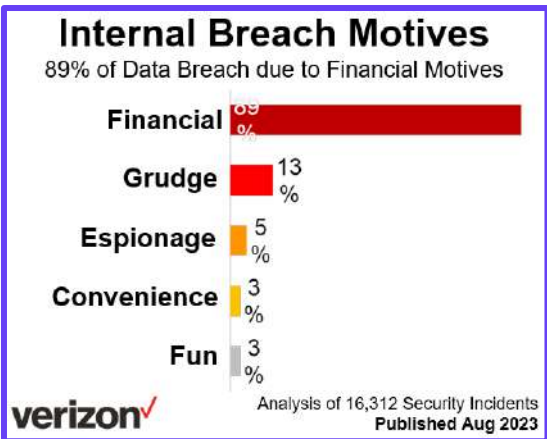
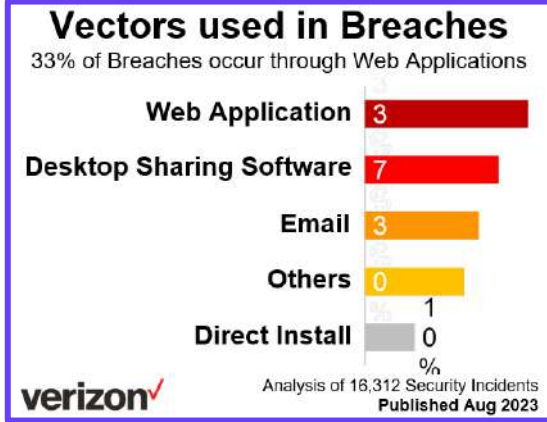
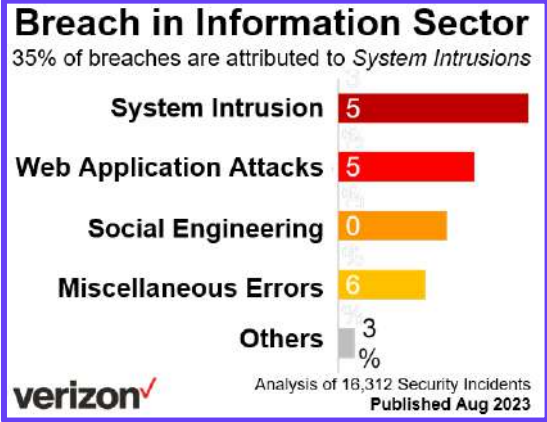
23% of attacks in H1 '23 are detected on Fridays

SUN	~6%
MON	~11%
TUE	~13%
WED	~16%
THUR	~19%
FRI	~23%
SAT	~13%

SOPHOS Based on Sophos 2023 Data
Published August 2023

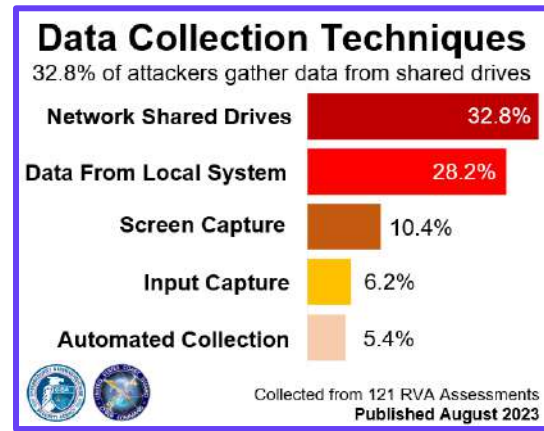
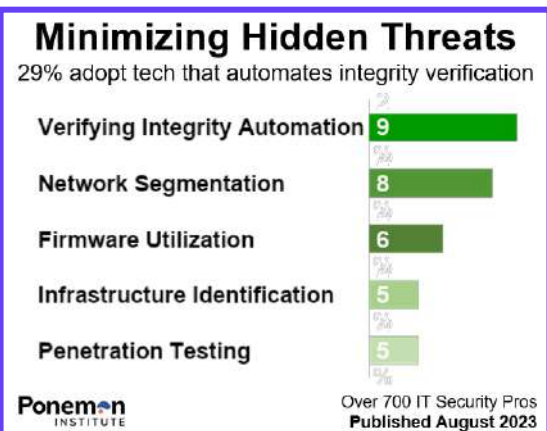
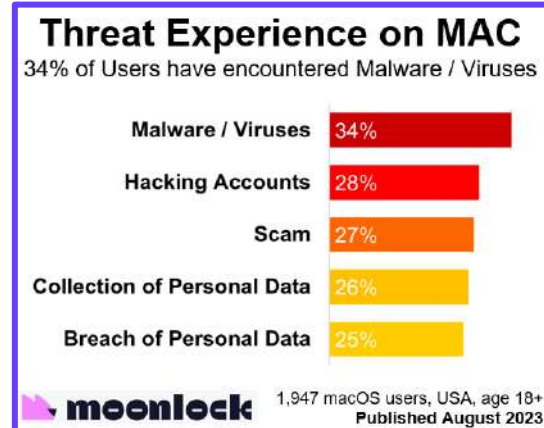
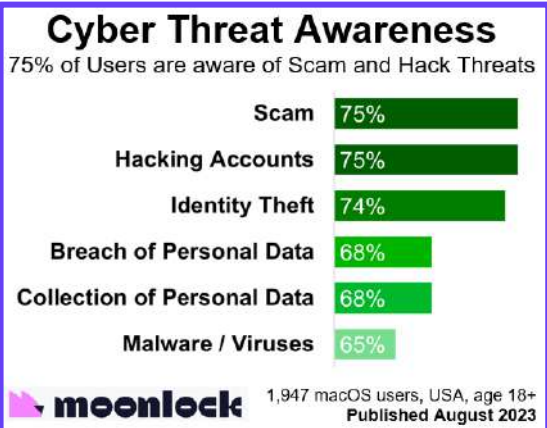
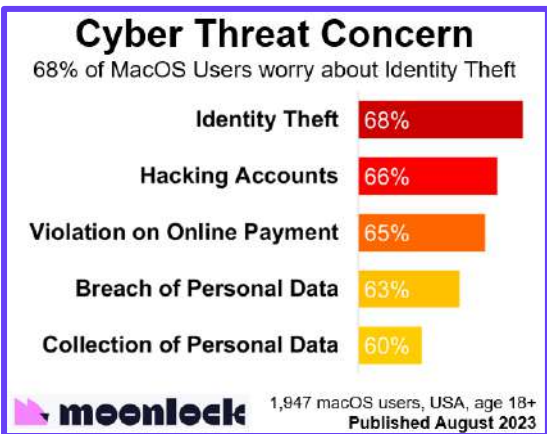
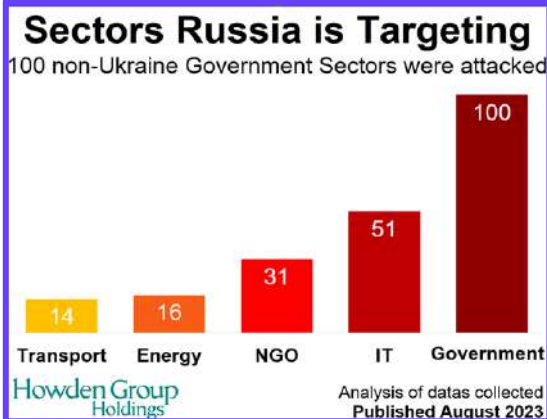
Cyber Insights: Breaches

Click each image to see each report in full. All were published in August 2023



Cyber Insights: *Cyber Threats*

Click each image to see each report in full. All were published in August 2023



Cyber Insights: *Security Challenges*

Click each image to see each report in full. All were published in August 2023

Most Common Security Gaps

37% can't verify security of all Apps & Workloads

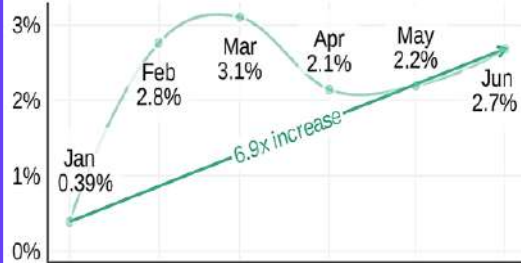


Ponemon INSTITUTE

Over 700 IT Security Pros
Published August 2023

ICS And OT Exploit Trend

690% rise in detected attacks in 1st Half of 2023

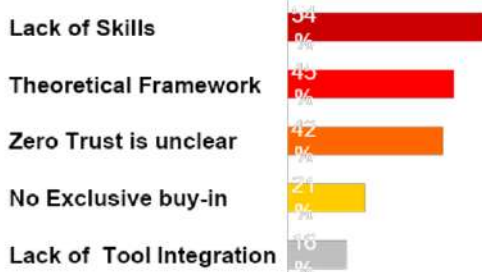


FORTINET

Based on Fortinet's data for H1 2023
Published August 2023

Firms can't adopt Zero-Trust

54% can't adopt zero-trust due to lack of skills



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Zero-Trust Model Approach

26% adopted zero-trust because gov policy required

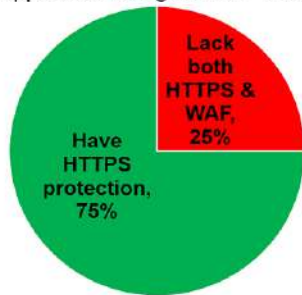


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Firewall & HTTPS Protection

25% of apps are lacking both HTTPS & WAF

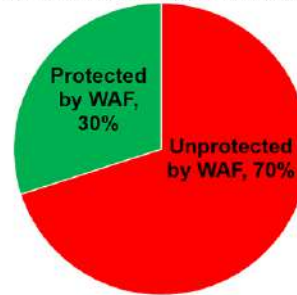


CYCOGNITO

3.5M Assets across Cycognito
Published August 2023

Web Application Firewall

70% of web apps not protected by WAF

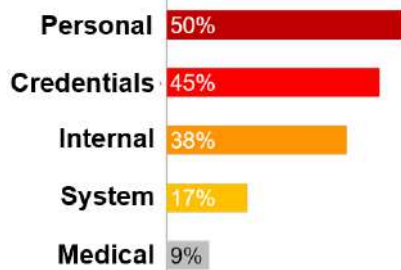


CYCOGNITO

3.5M Assets across Cycognito
Published August 2023

Data Types in Breaches

50% of breaches include Personal Information

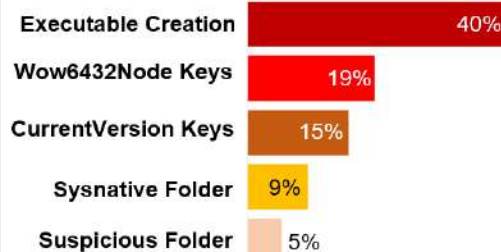


verizon

Analysis of 16,312 Security Incidents
Published Aug 2023

Top Sigma Rules For Threats

40% of threats detected as "executable creation"

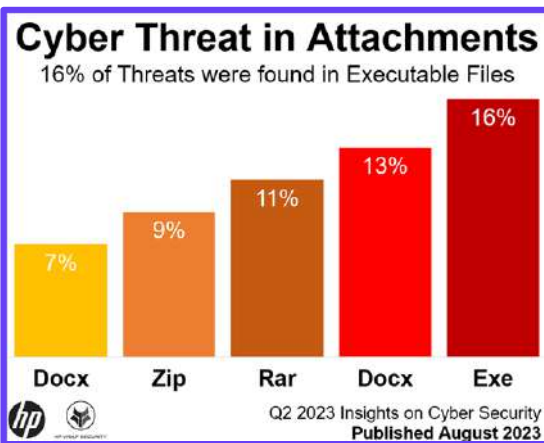
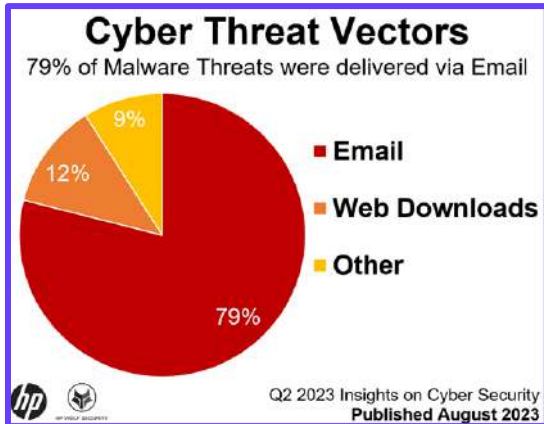


BlackBerry

224,851 unique samples stopped
Published August 2023

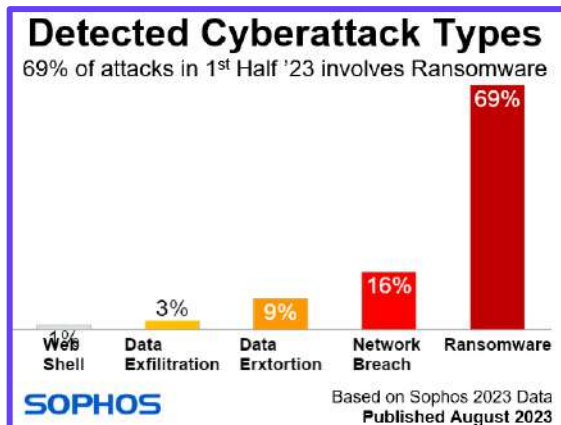
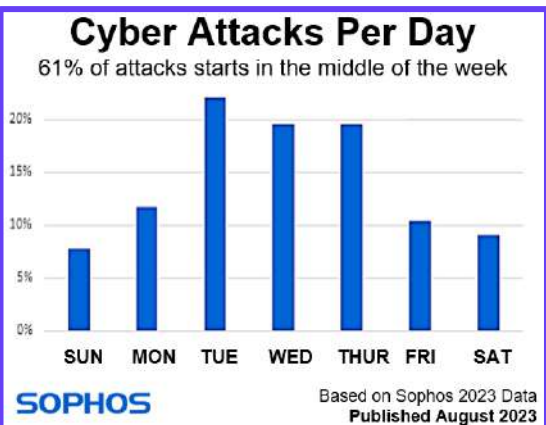
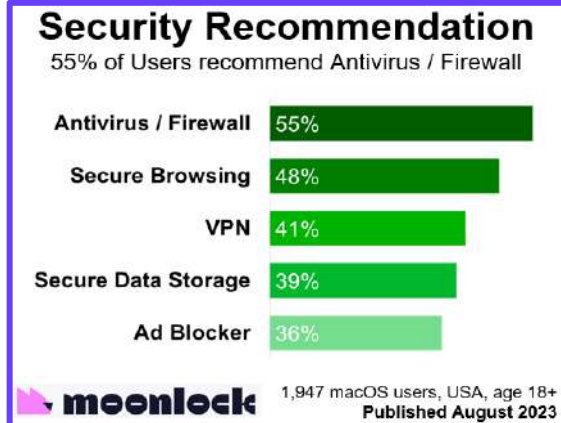
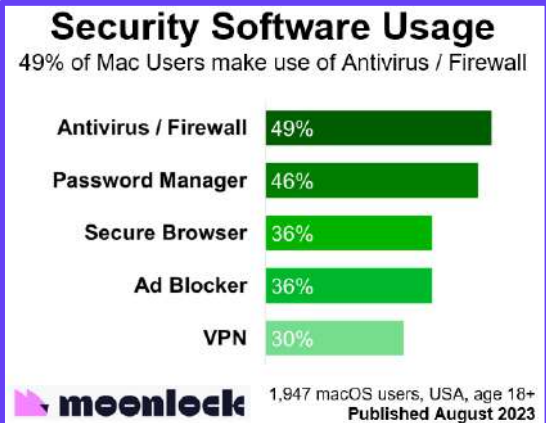
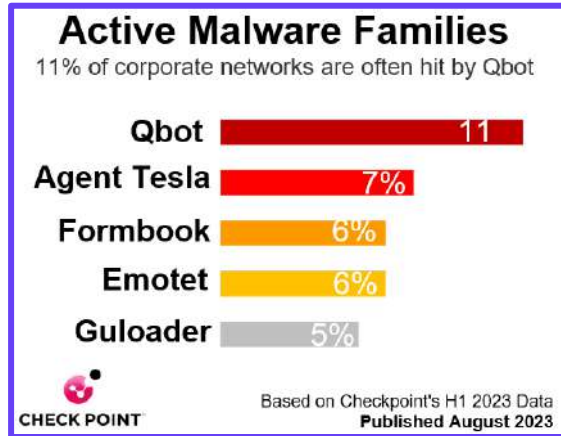
Cyber Insights: *Threat Landscape*

Click each image to see each report in full. All were published in August 2023



Cyber Insights: *Email Security*

Click each image to see each report in full. All were published in August 2023

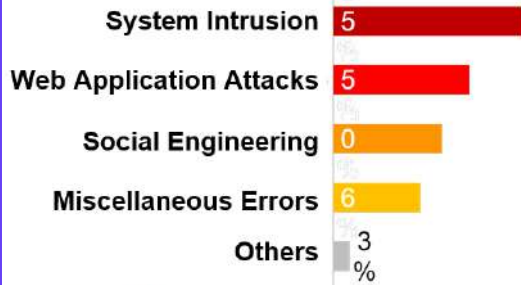


Cyber Insights: *Others*

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Breach in Information Sector

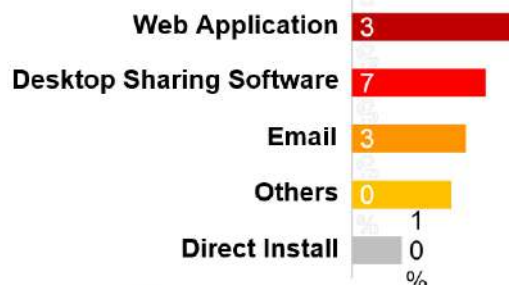
35% of breaches are attributed to *System Intrusions*



verizon Analysis of 16,312 Security Incidents Published Aug 2023

Vectors used in Breaches

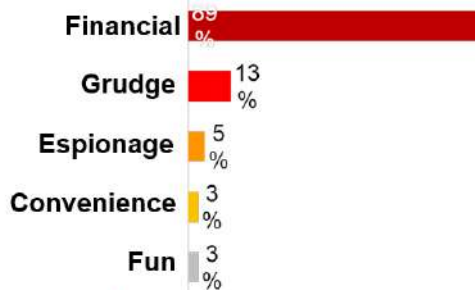
33% of Breaches occur through Web Applications



verizon Analysis of 16,312 Security Incidents Published Aug 2023

Internal Breach Motives

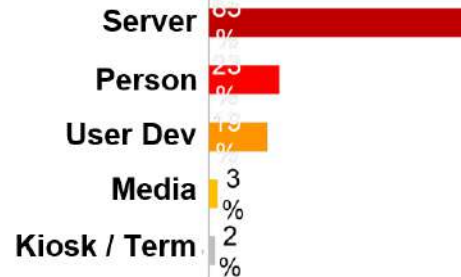
89% of Data Breach due to Financial Motives



verizon Analysis of 16,312 Security Incidents Published Aug 2023

Assets Affected by Breach

85% says Servers as the most affected Asset



verizon Analysis of 16,312 Security Incidents Published Aug 2023

Breach Attack Actions

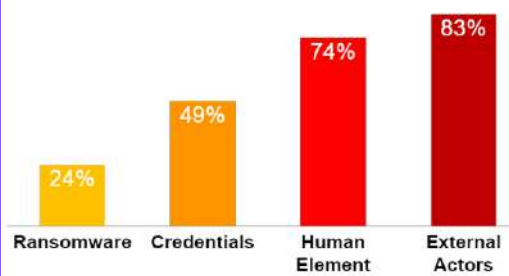
Use of Stolen Creds tops Action Varieties at 43%



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Findings on Breaches

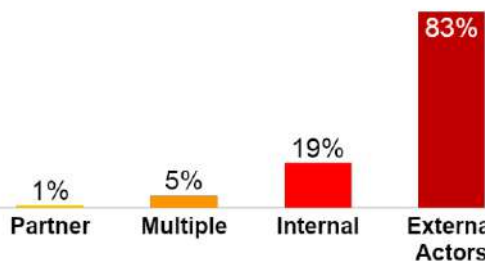
83% of breaches involved External Actors



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Threat Actors in Breaches

83% of Breaches are attributed to External Actors

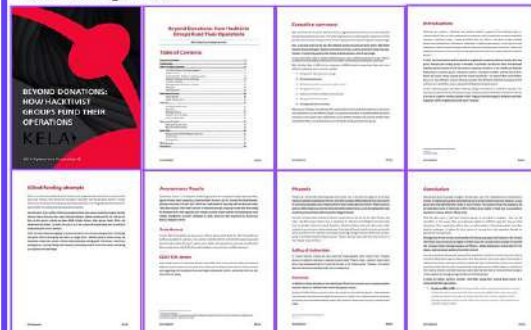


verizon Analysis of 16,312 Security Incidents Published Aug 2023

KELA Insights on Hacktivists

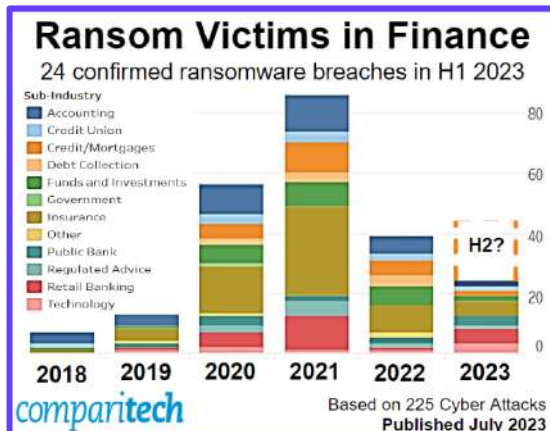
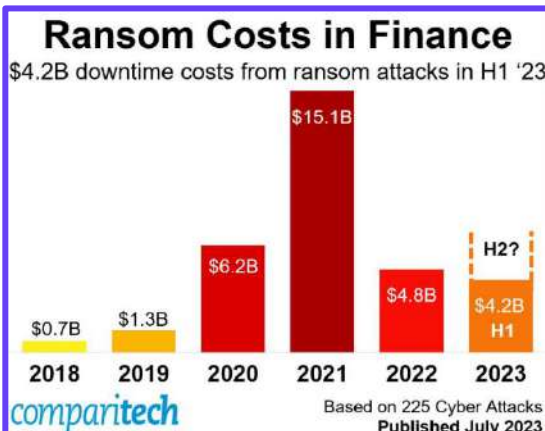
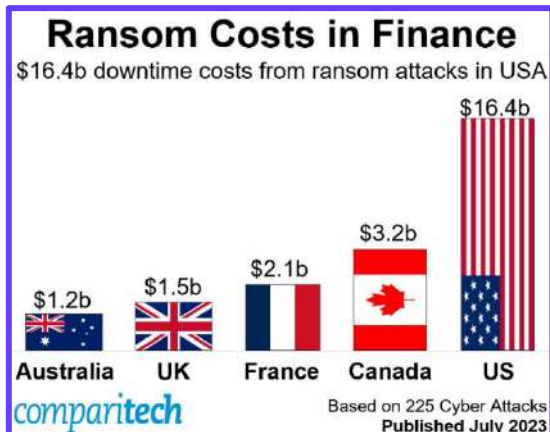
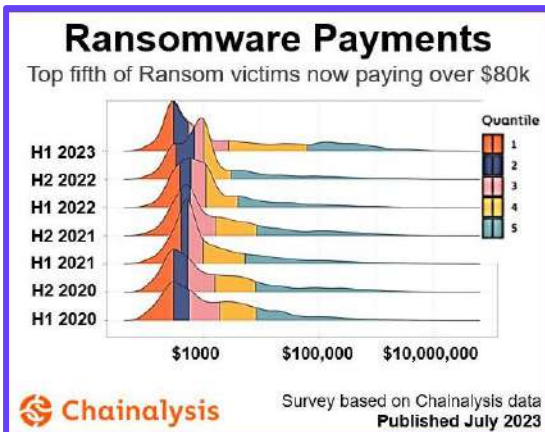
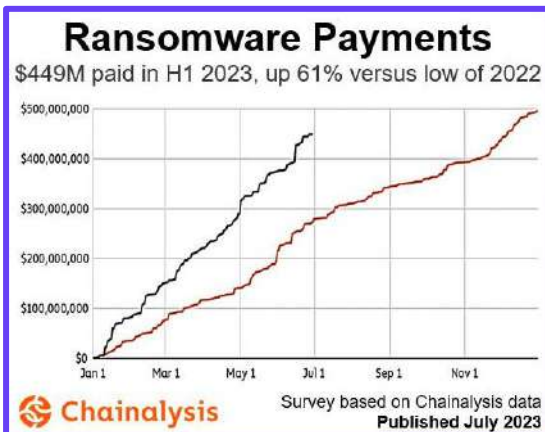
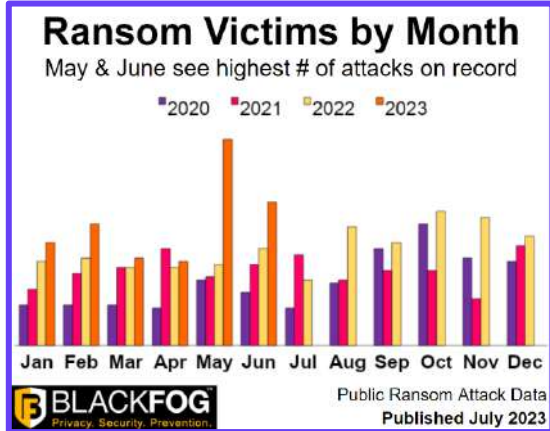
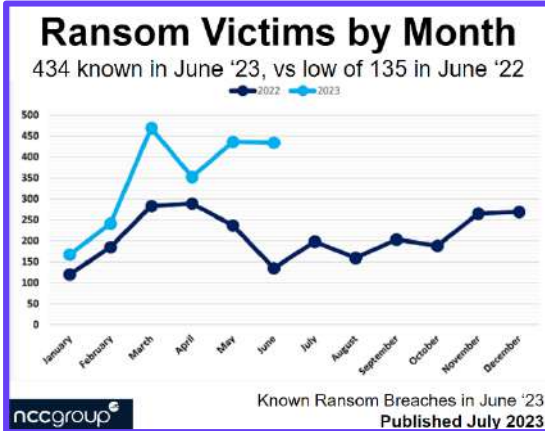
How Hacktivists fund their operations

Published August 2022



The Best Cyber Insights of 2023

Click each image to see each report in full. All were published in July 2023



Cyber Insights: *Ransomware Numbers*

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Ransoms Paid to each Gang

\$1.9m average (mean) when CIOp paid by a Victim

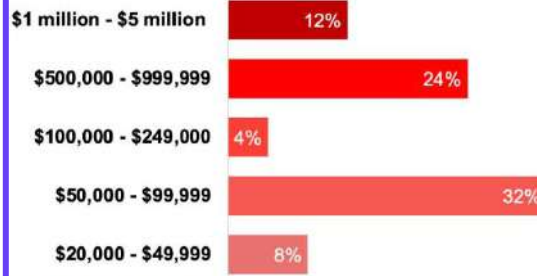
Strain name	2023 average payment size	2023 median payment size
Phobos	\$1,719	\$300
Stop/djvu	\$619	\$563
BlackBasta	\$762,634	\$147,106
ALPHV/Blackcat	\$1,504,579	\$305,585
CIOp	\$1,730,486	\$1,946,335



Published July 2023

Ransom Payments

12% of victims paid ransom between \$1 - \$5 mil

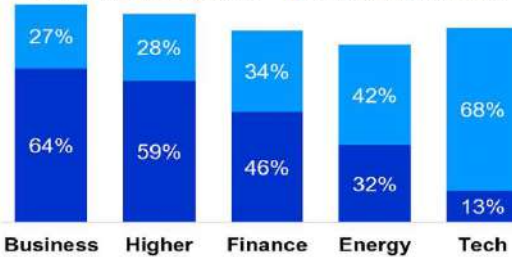


3,000 Security Pros
Published July 2023

Impact of Ransomware

64% of Business Services lost a lot of revenue

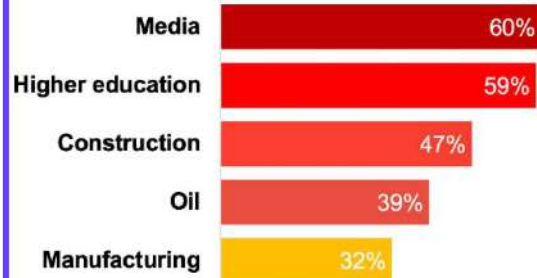
Legend: Lost a lot of business/revenue (Dark Blue), Lost a little business/revenue (Light Blue)



Survey of 3,000 IT Pros.
Published July 2023

Impact of Ransom Breach

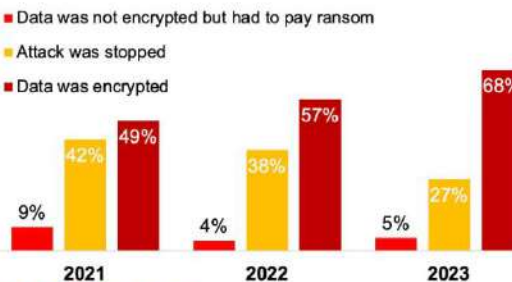
32% of victims in Media "lost a lot of revenue"



3,000 Security Pros
Published July 2023

Impact of Ransom Breach

68% of victim firms suffer data encryption

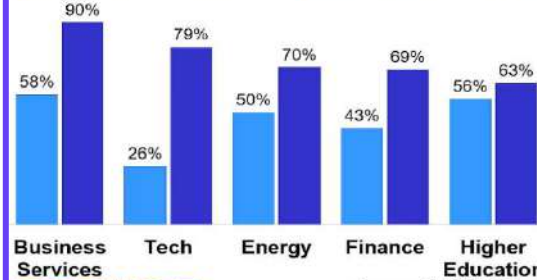


3,000 Security Pros
Published July 2023

Ransom vs Backup

90% of Business Serv recovered data with backups

Legend: Paid the ransom and got data back (Light Blue), Used backups to restore the data (Dark Blue)



Survey of 3,000 IT Pros.
Published July 2023

Known Ransom Victims Q2

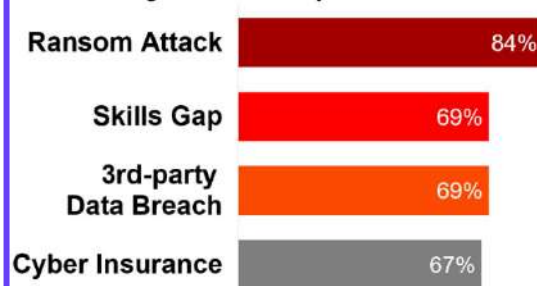
38% increase in victim volume since Q1 2023



Based on Public Ransomware Data
Published July 2023

What Drives Cyber Strategy?

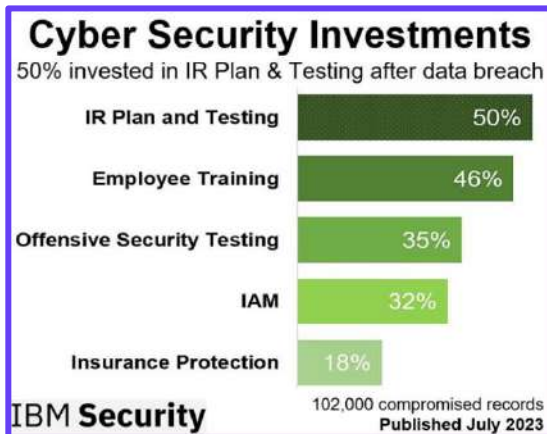
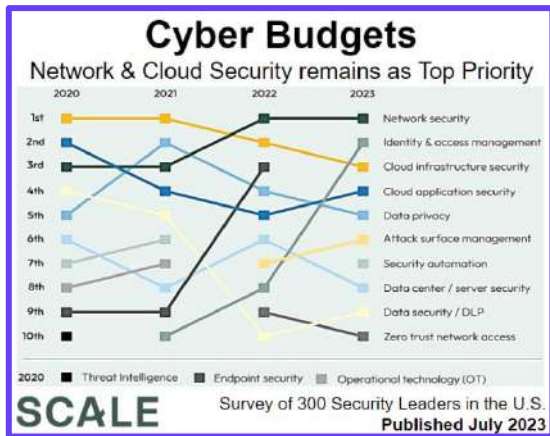
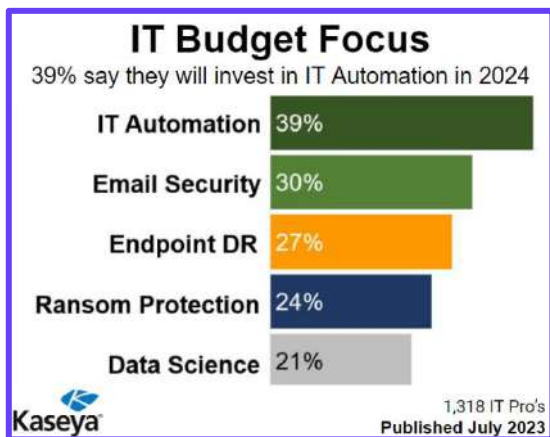
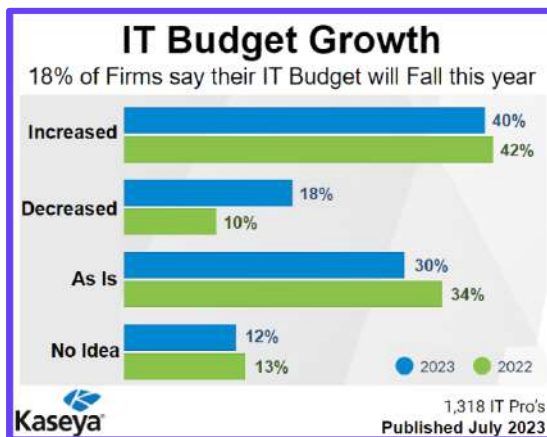
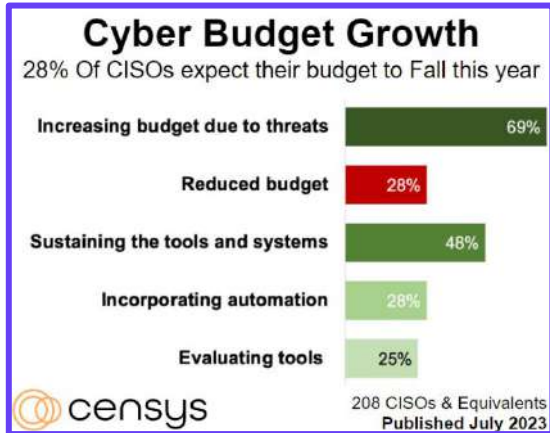
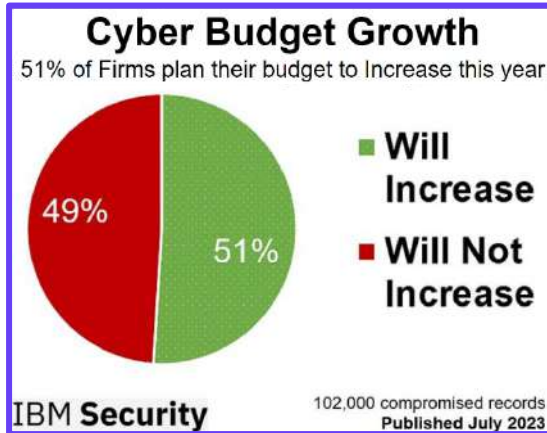
84% of strategies are driven by Ransomware attacks



Survey of 300 Security Leaders in the U.S.
Published July 2023

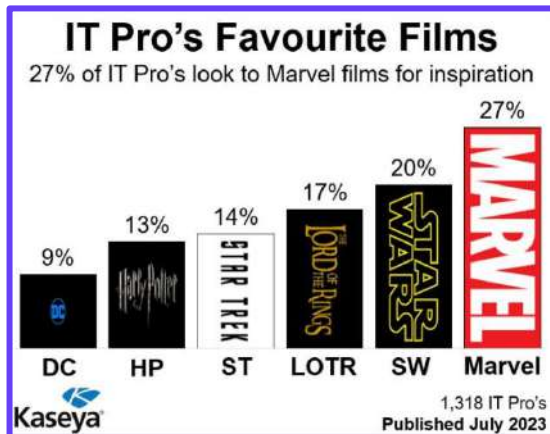
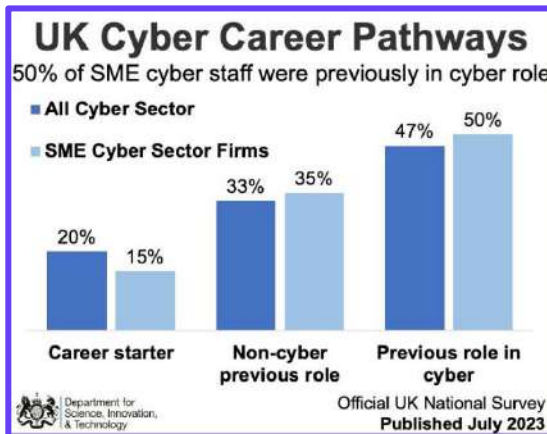
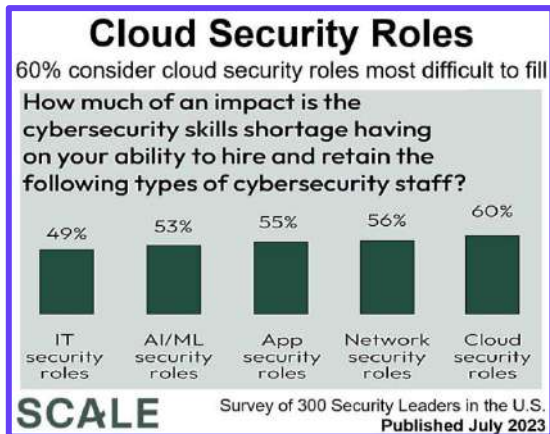
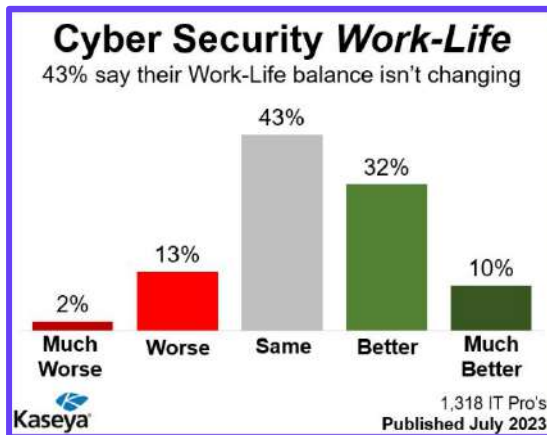
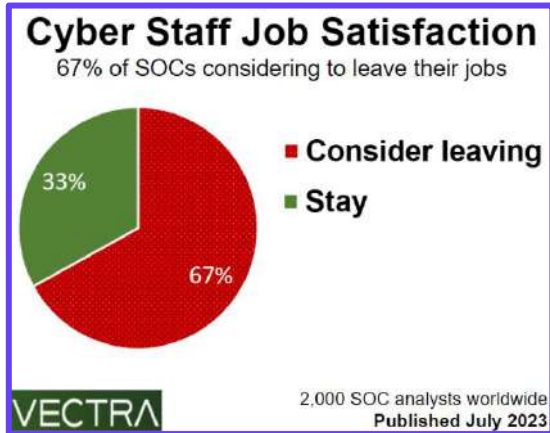
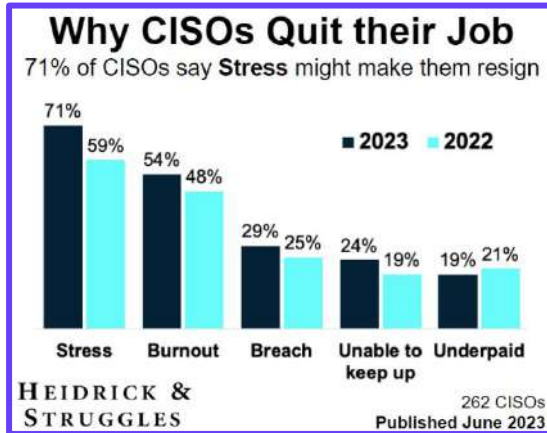
Cyber Insights: *Cyber Budgets & Investments*

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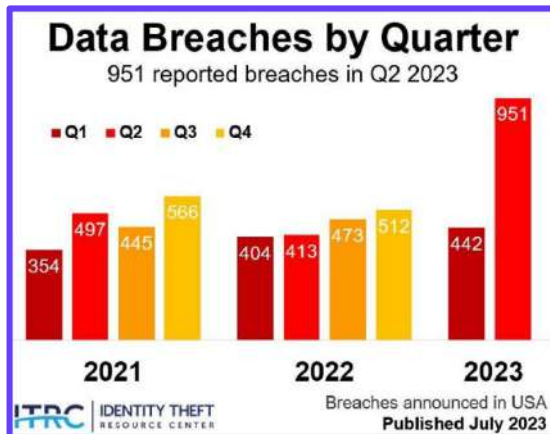
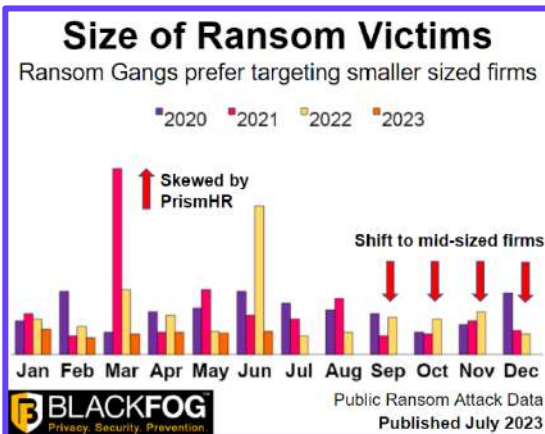
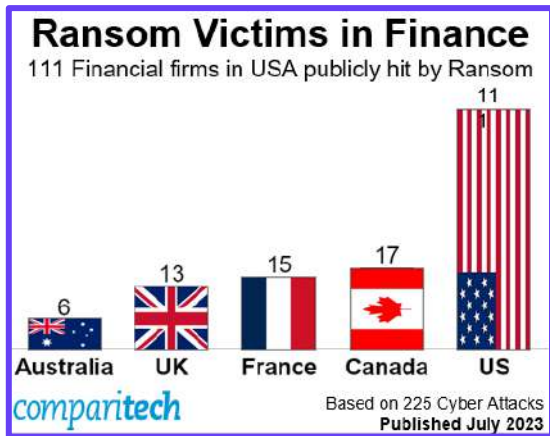
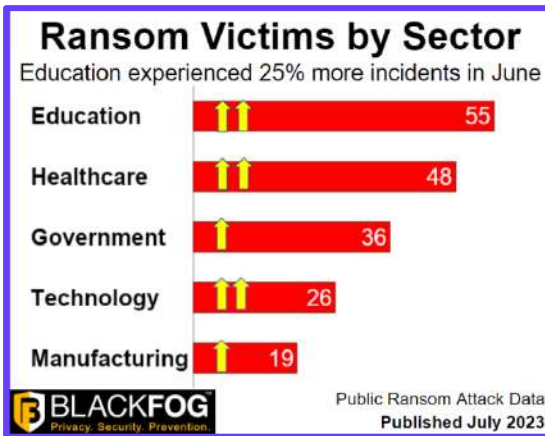
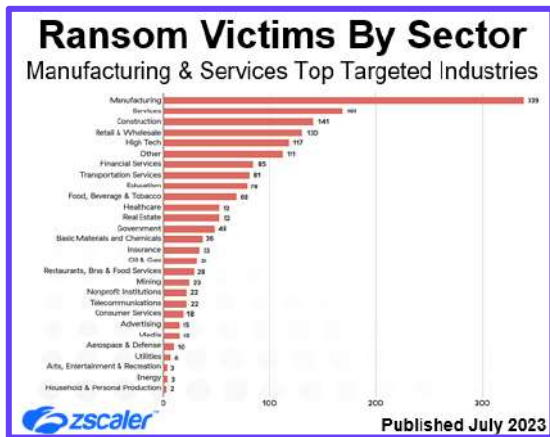
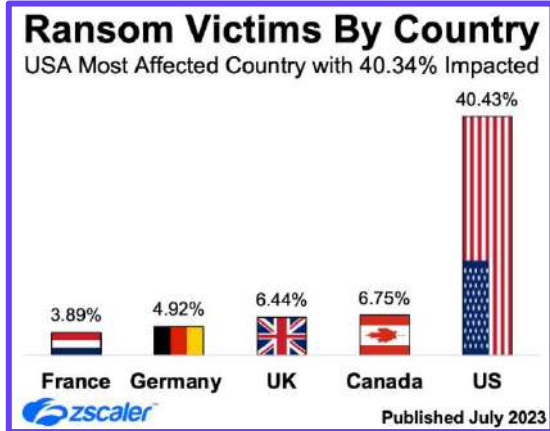
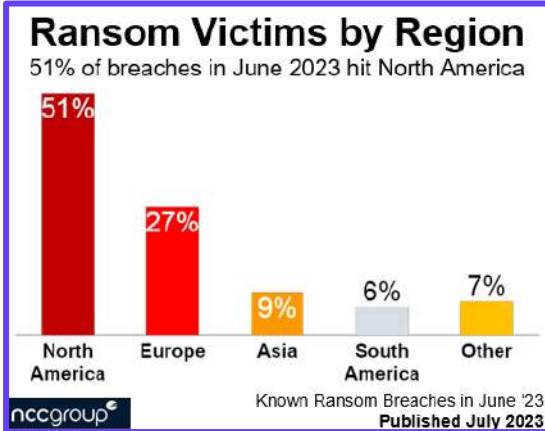
Cyber Insights: *Cyber People*

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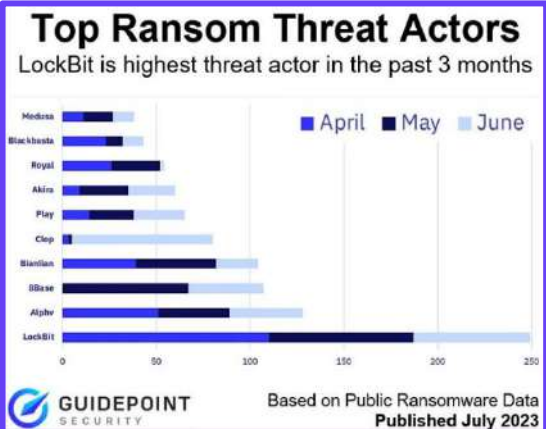
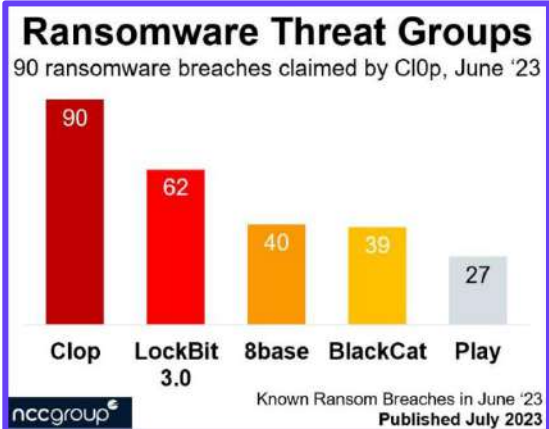
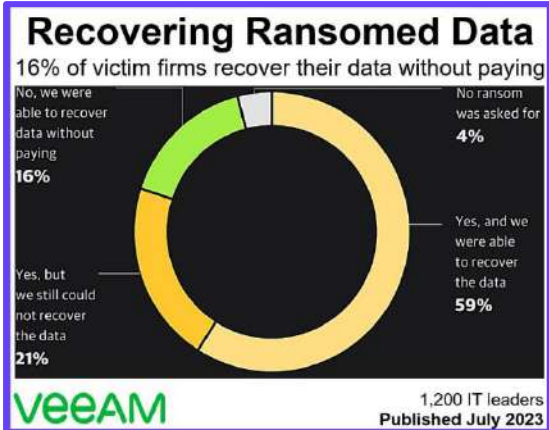
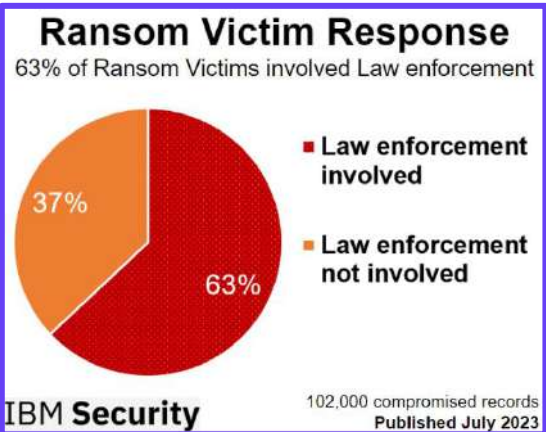
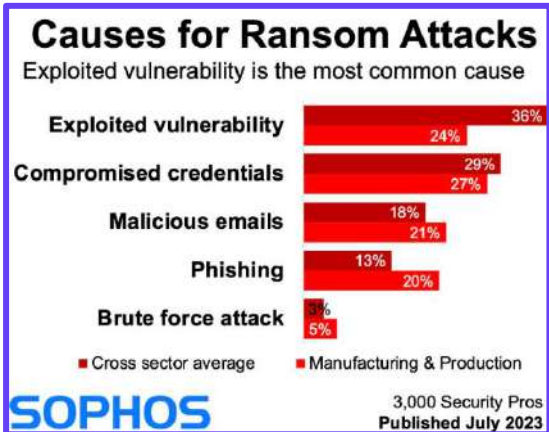
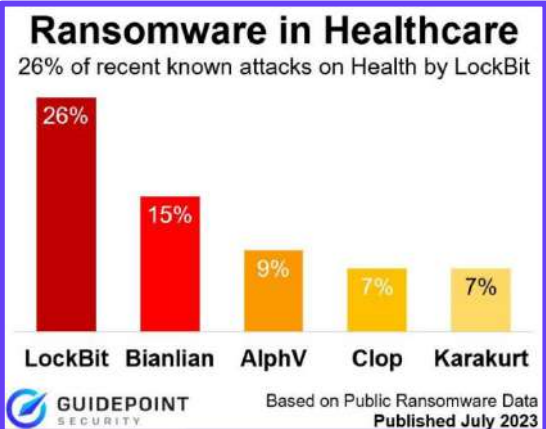
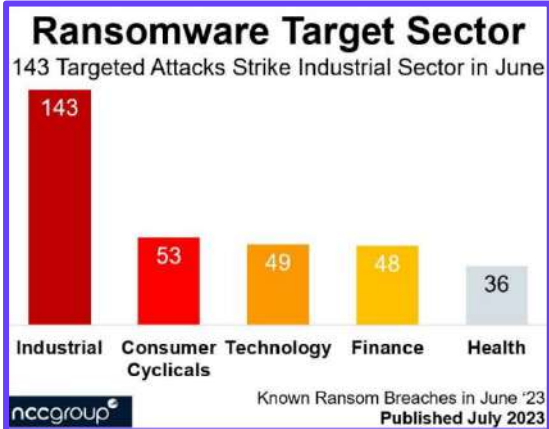
Cyber Insights: *Ransomware Victims*

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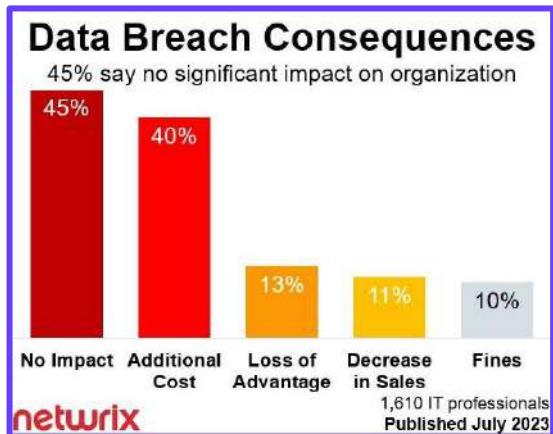
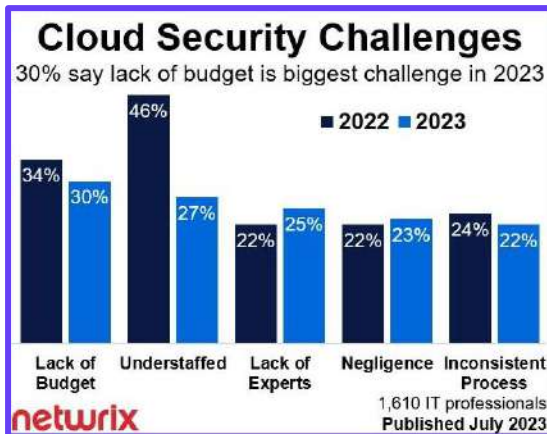
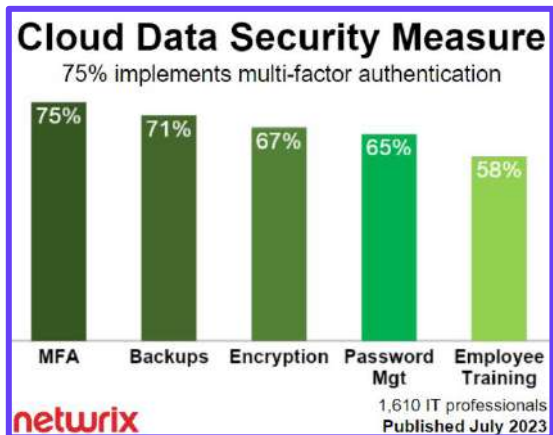
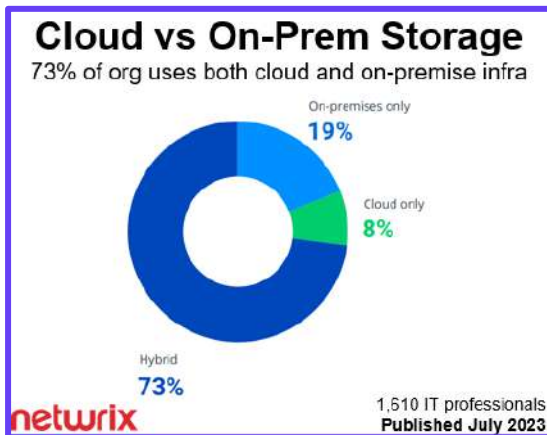
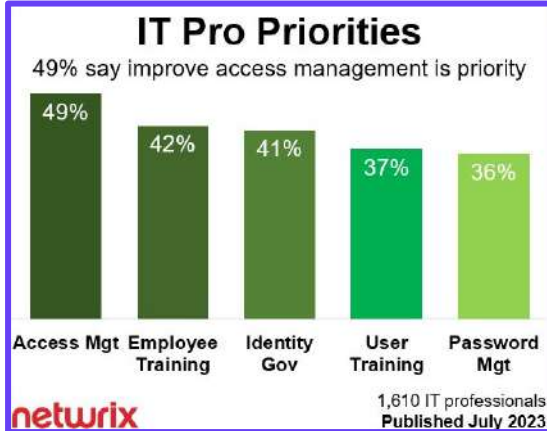
Cyber Insights: *Ransomware Victims*

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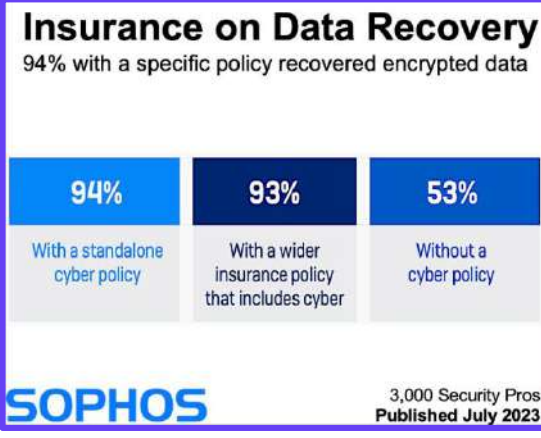
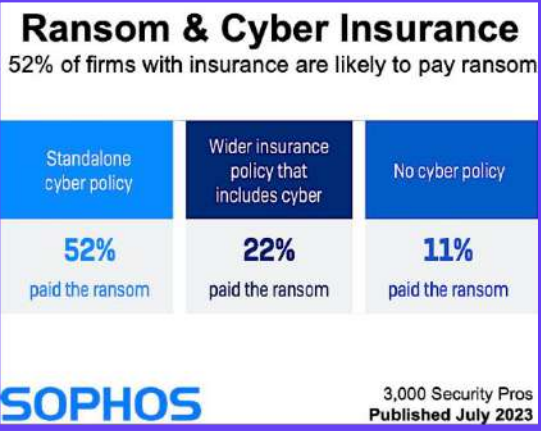
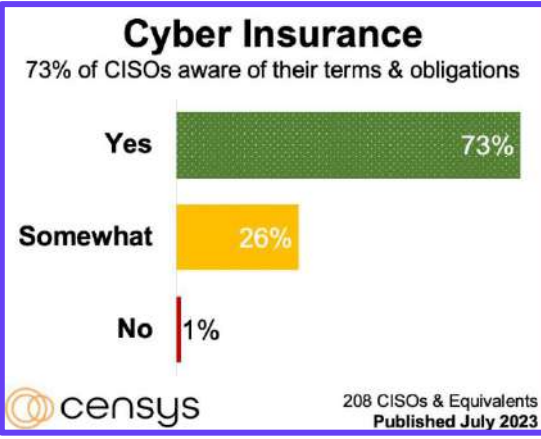
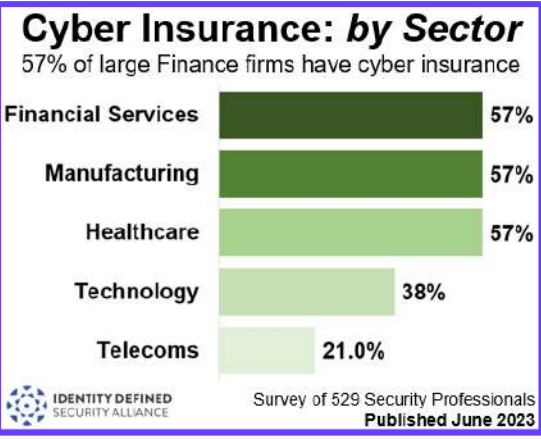
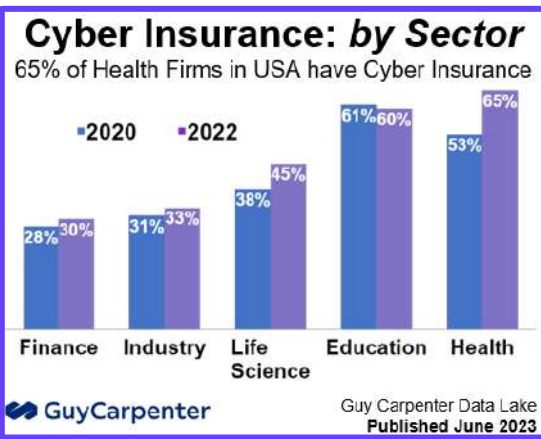
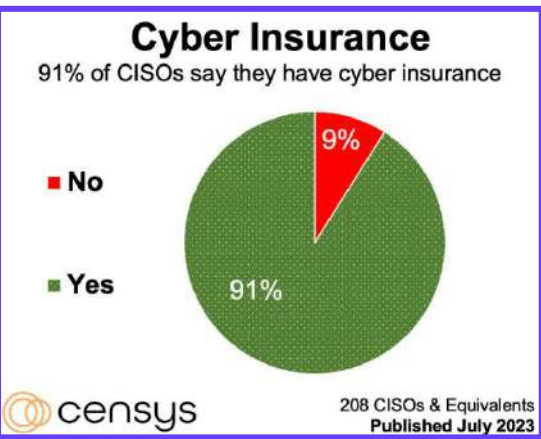
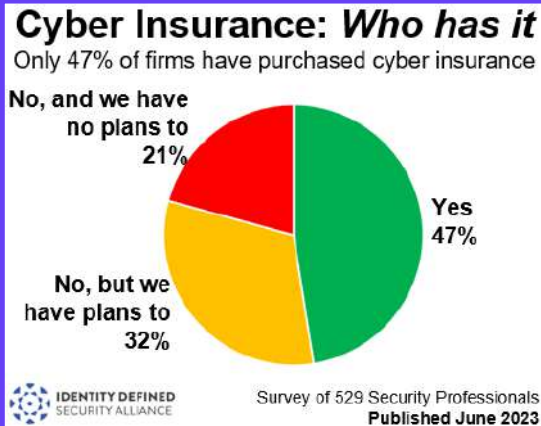
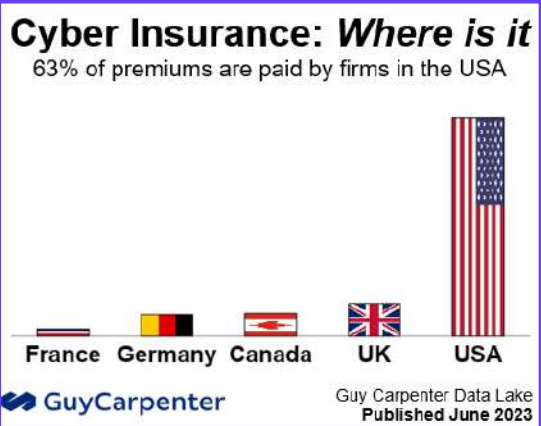
Cyber Insights: *IT & Security Priorities*

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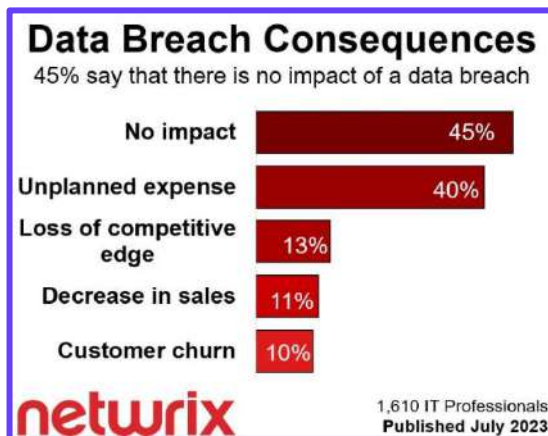
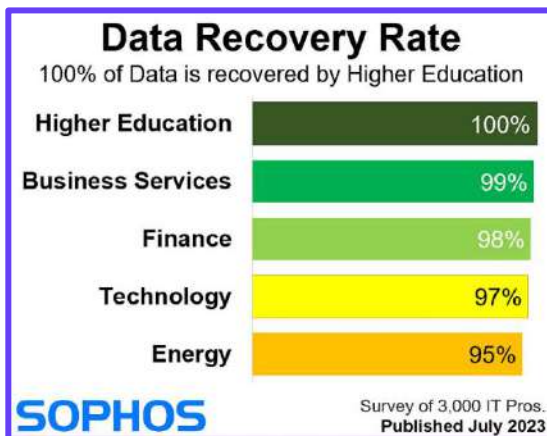
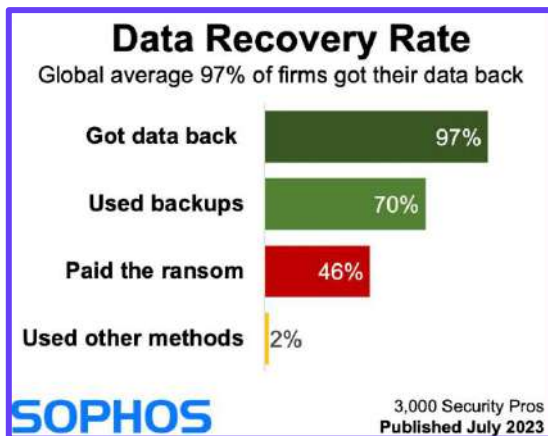
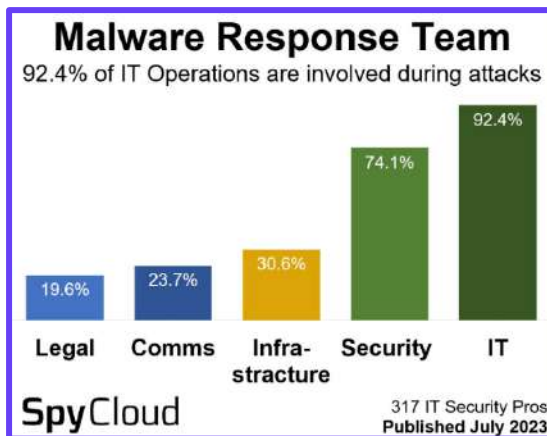
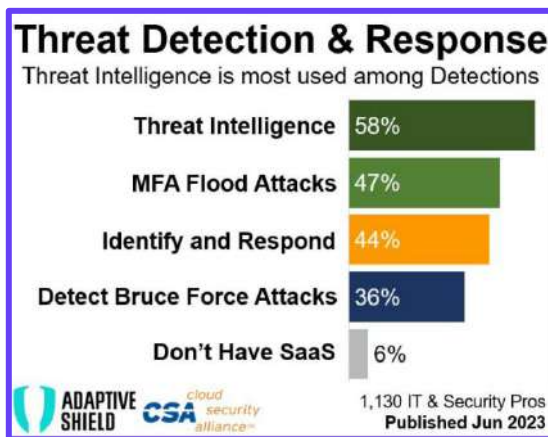
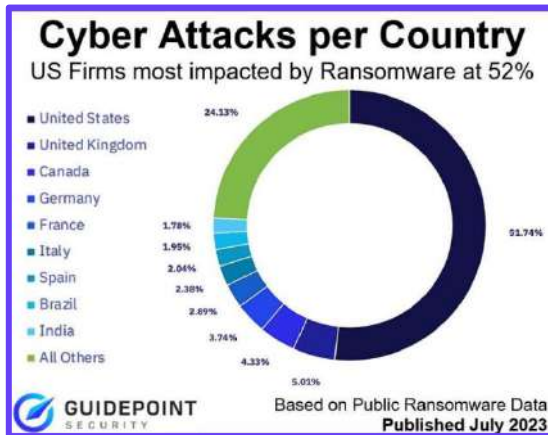
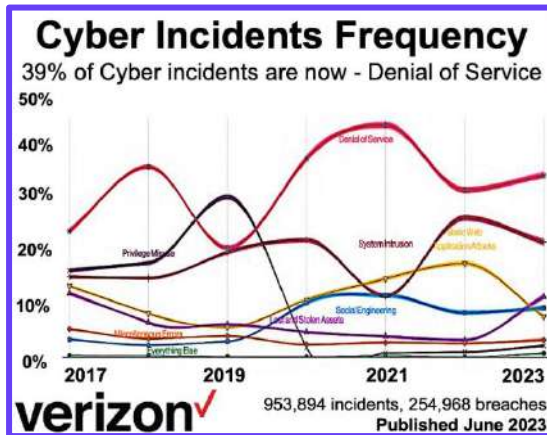
Cyber Insights: *Cyber Insurance*

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Cyber Insights: *Cyber Incident Response*

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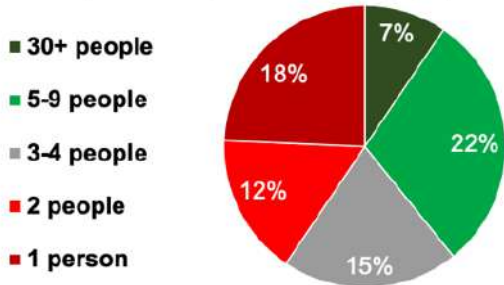


Cyber Insights: *Cyber People*

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UK Cyber Team Employment

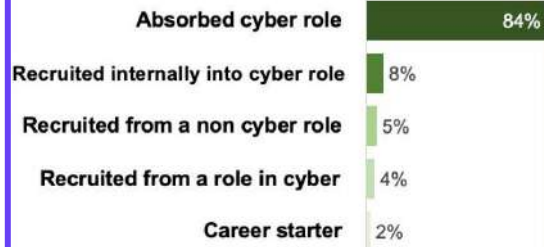
7% of cyber security firms have >30 employees



Official UK National Survey
Published July 2023

UK Cyber Career Pathways

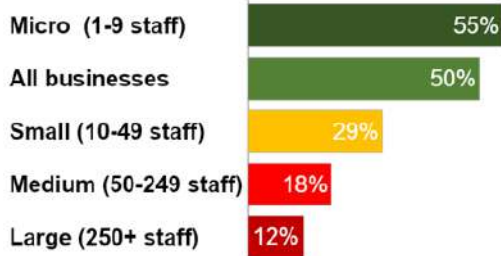
84% firms transition staff who don't have cyber skills



Official UK National Survey
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Cyber Security Staffing in UK

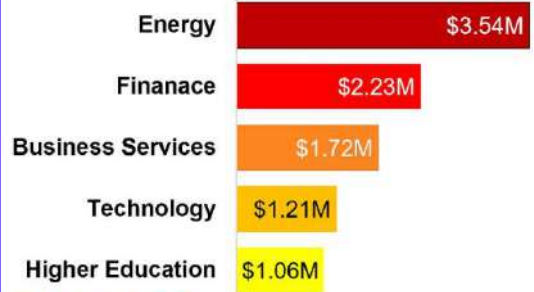
50% of all firms have 1 person working on cyber



Official UK National Survey
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Recovery Costs from Attack

\$3.54M is the average cost to recover in Energy



Survey of 3,000 IT Pros.
Published July 2023

UK Cyber Workforce Roles

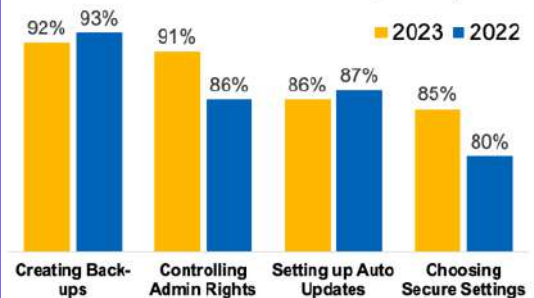
38% of UK Cyber jobs include a Data Protection role



Official UK National Survey
Published July 2023

Confidence in doing Tasks

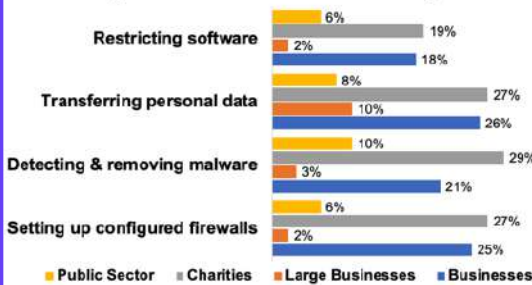
92% of firms are confident in creating backups in '23



Official UK National Survey
Published July 2023

Confidence in doing Tasks

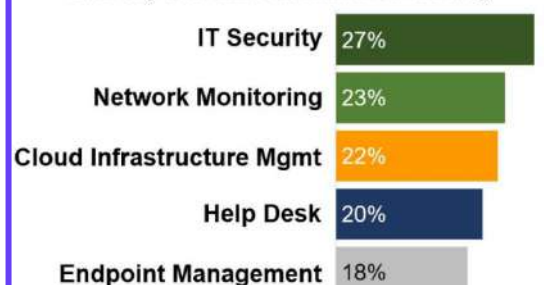
2% of Large Firms are confident detecting malware



Official UK National Survey
Published July 2023

Outsourcing IT Services

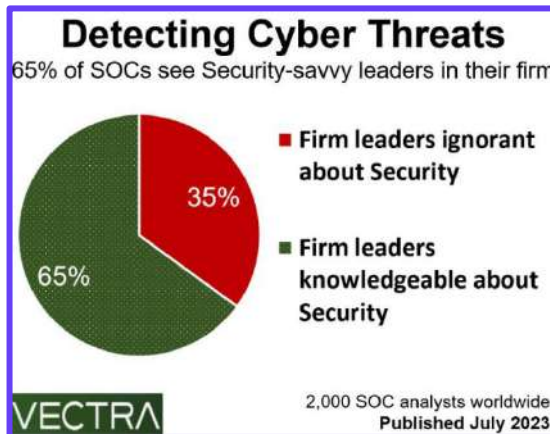
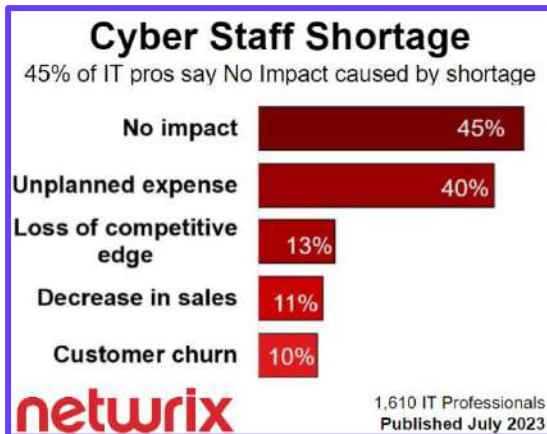
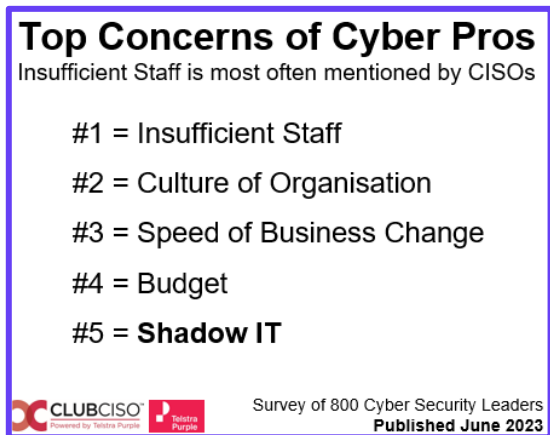
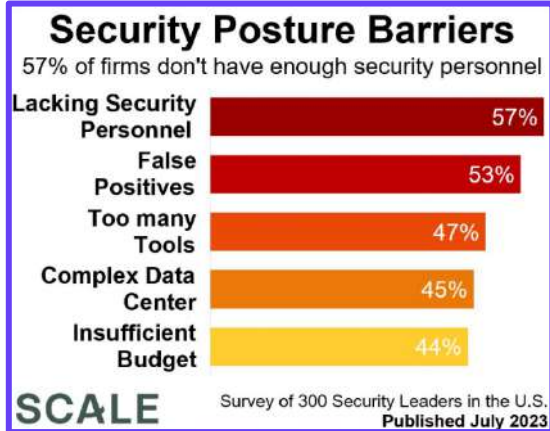
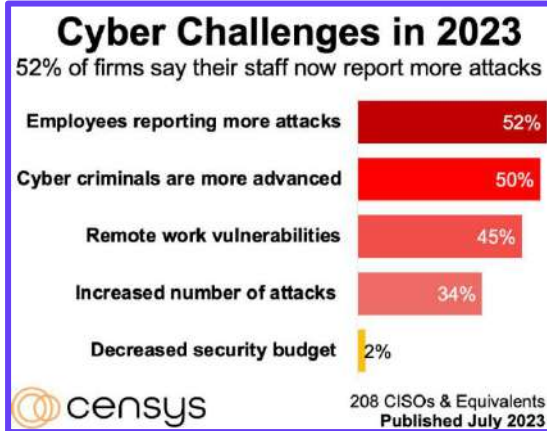
27% say their firm outsources IT Security



1,318 IT Pro's
Published July 2023

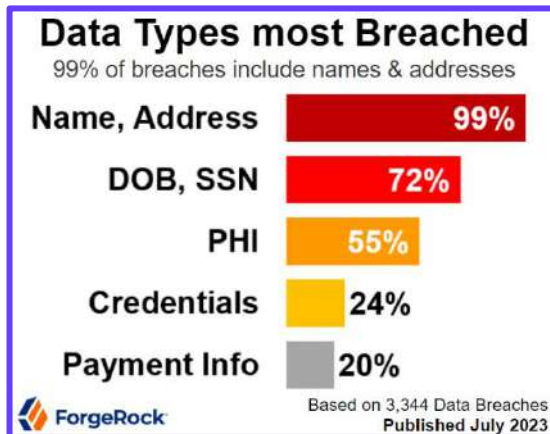
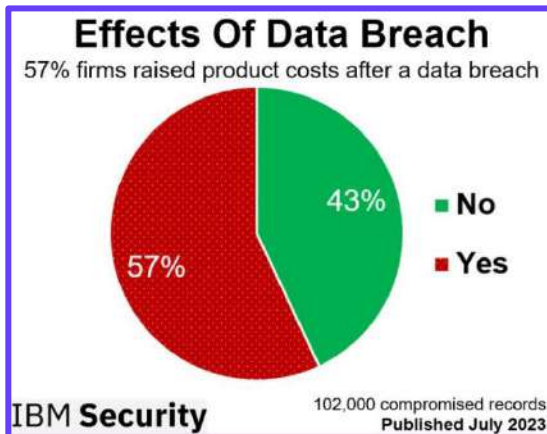
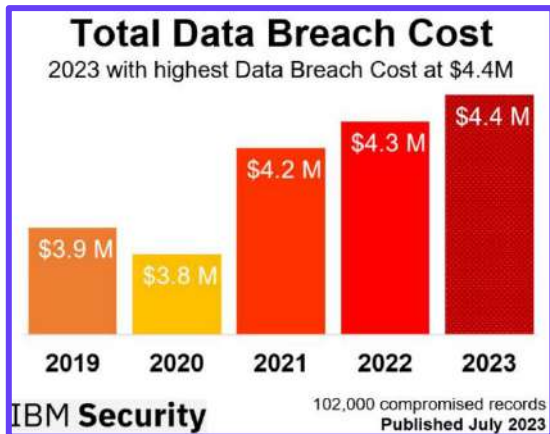
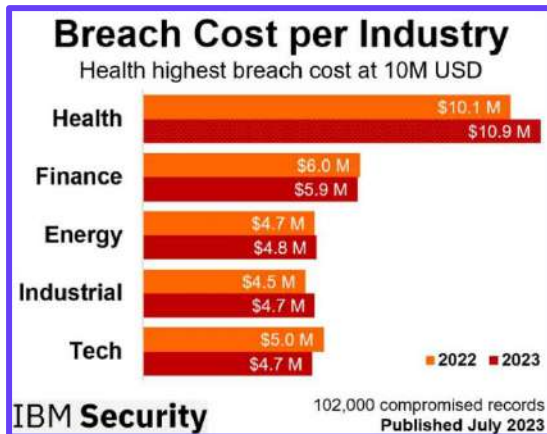
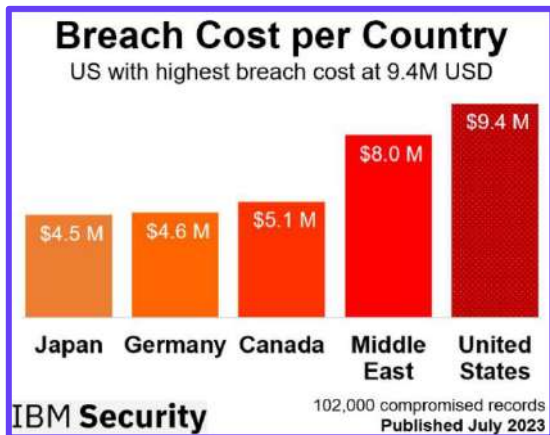
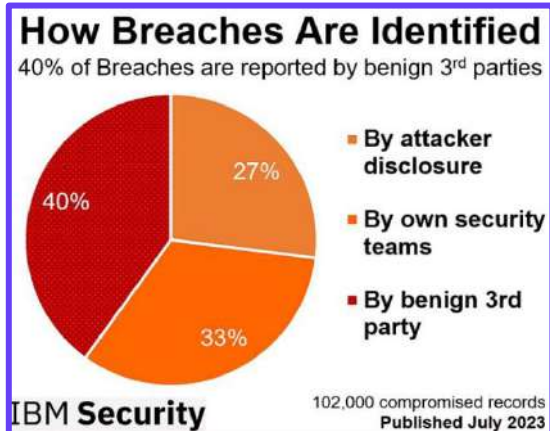
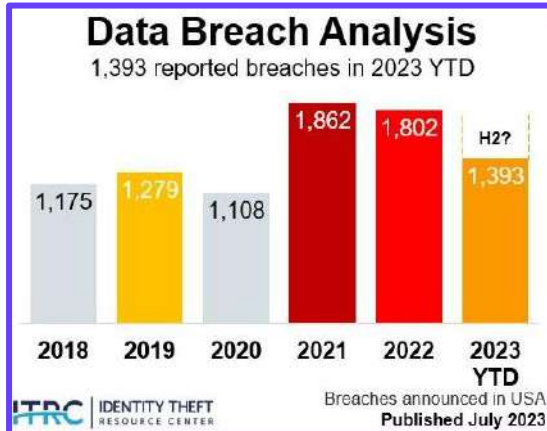
Cyber Insights: *Cyber Security Challenges*

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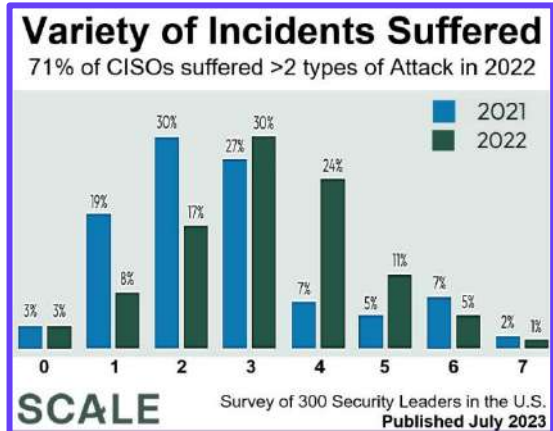
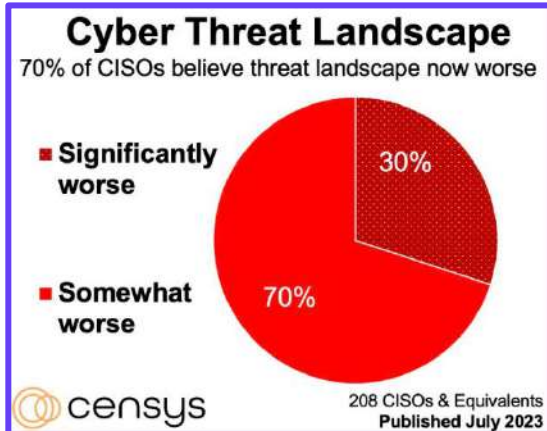
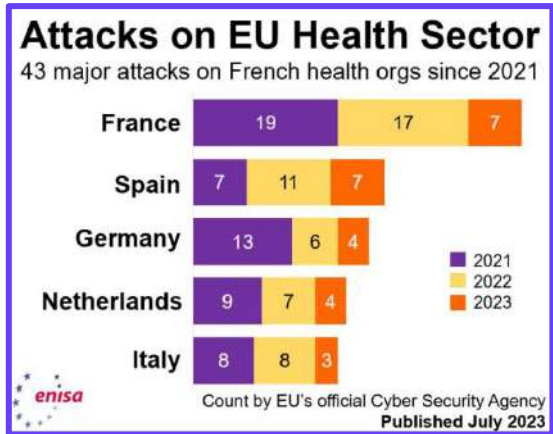
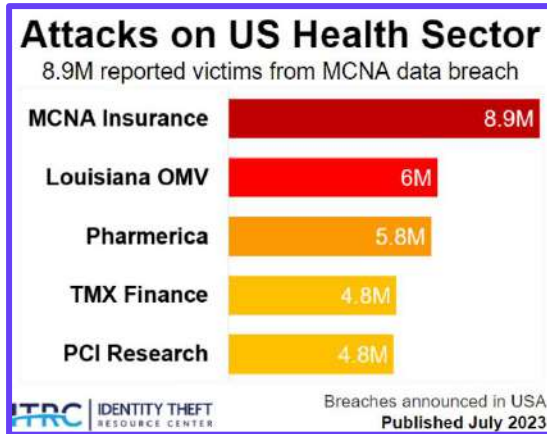
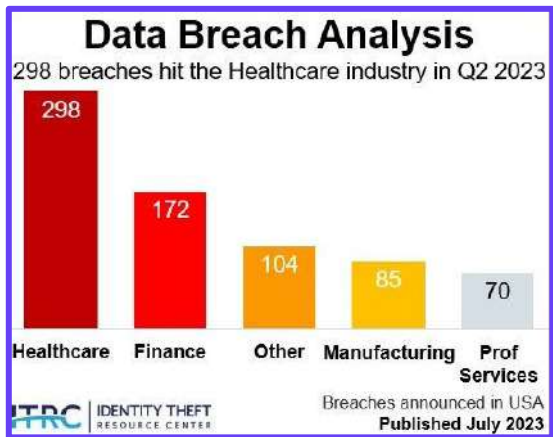
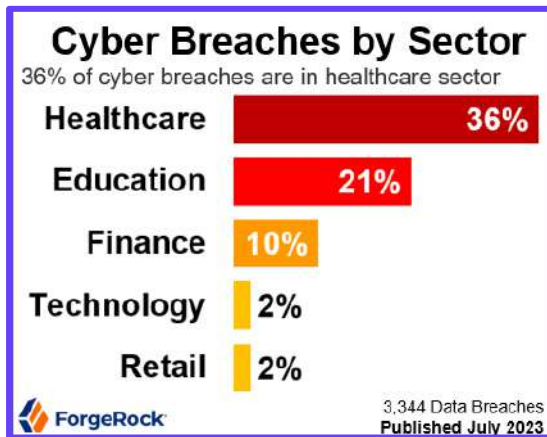
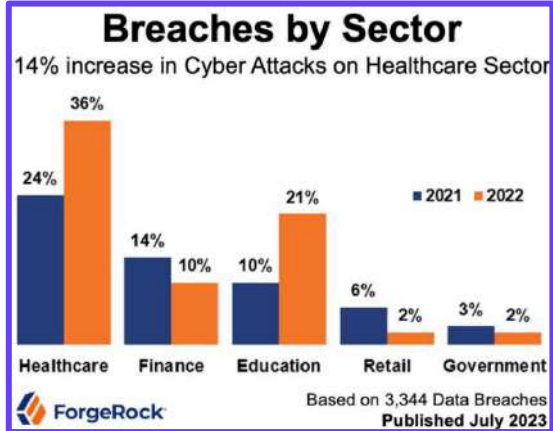
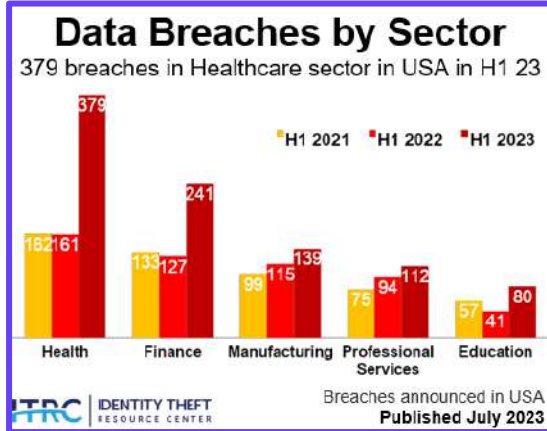
Cyber Insights: *Data Breaches*

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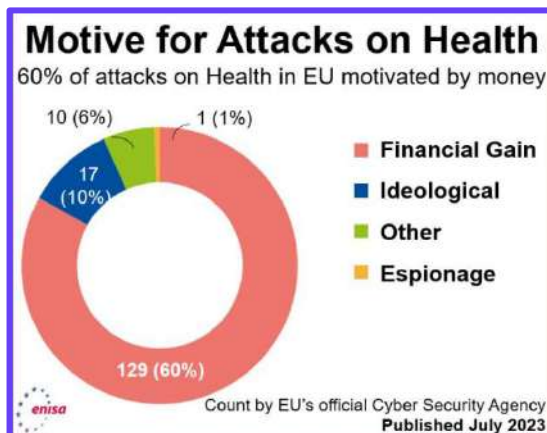
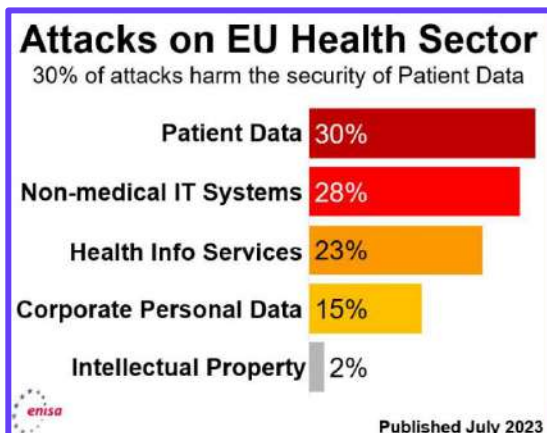
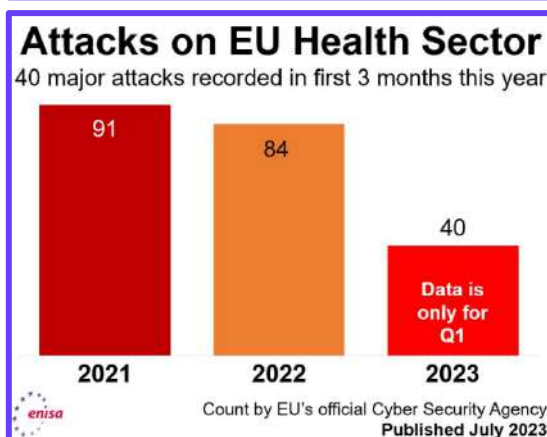
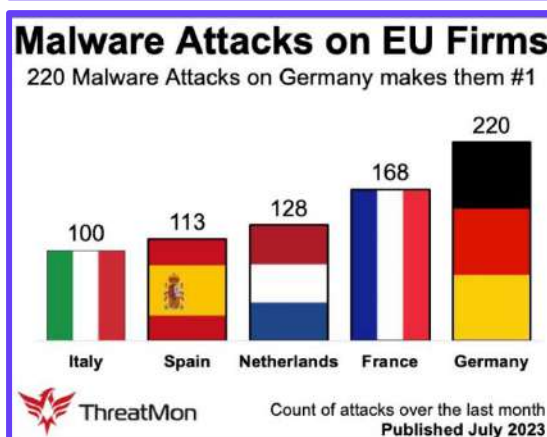
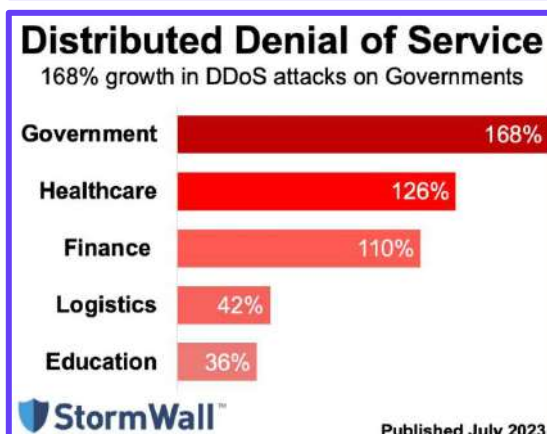
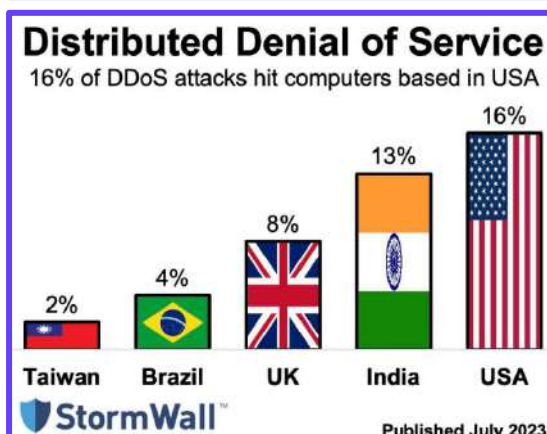
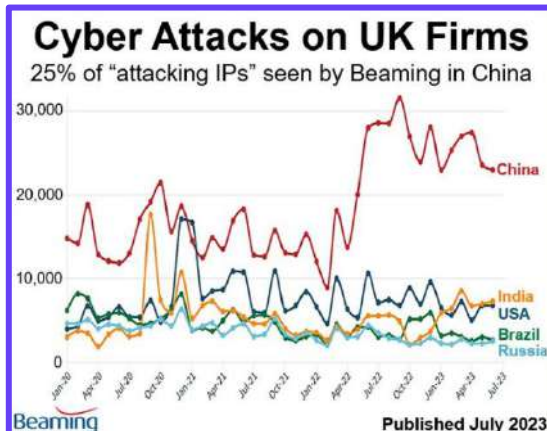
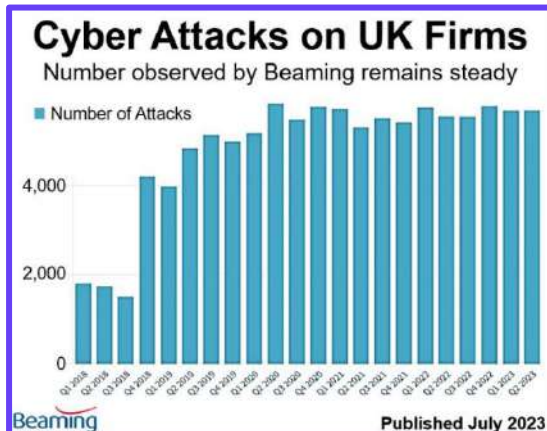
Cyber Insights: *Data Breaches*

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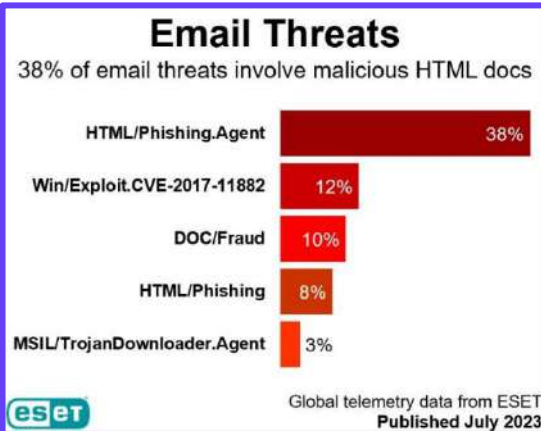
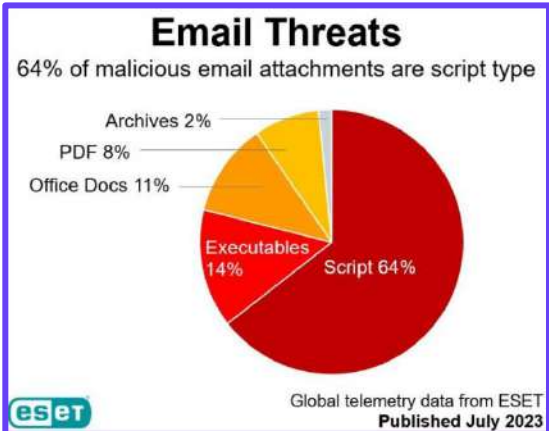
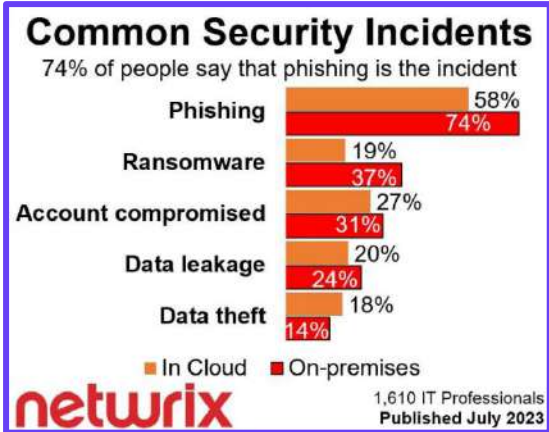
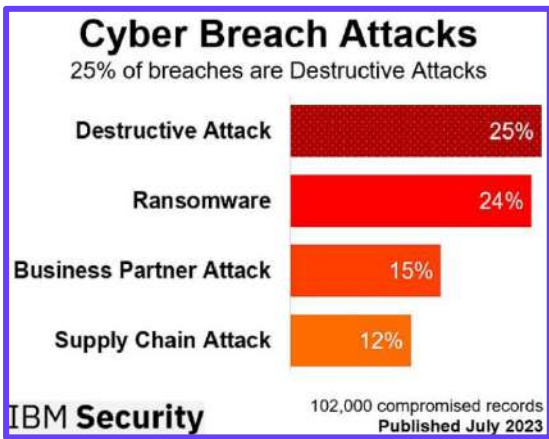
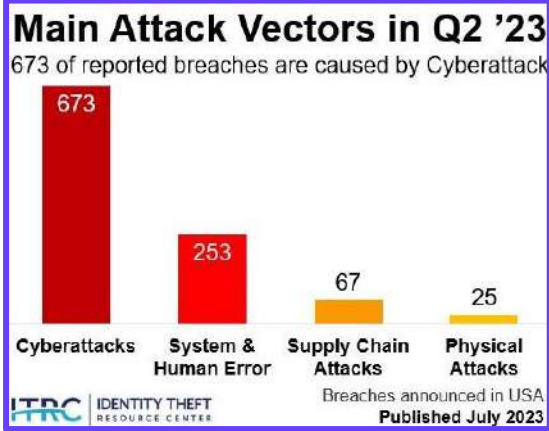
Cyber Insights: *Cyber Threats Target*

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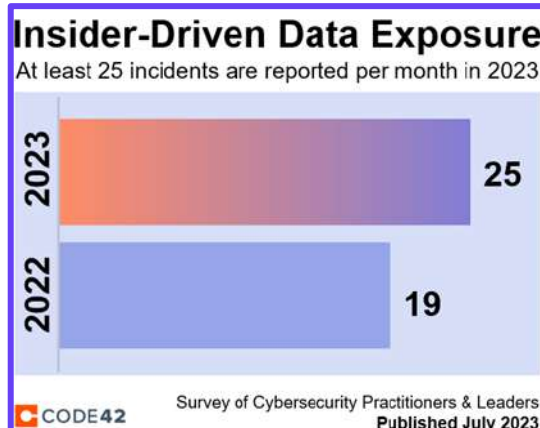
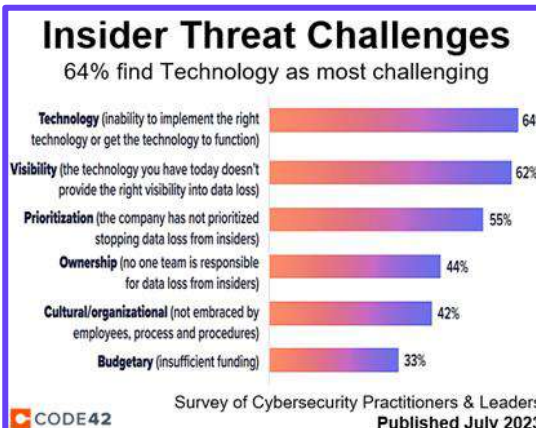
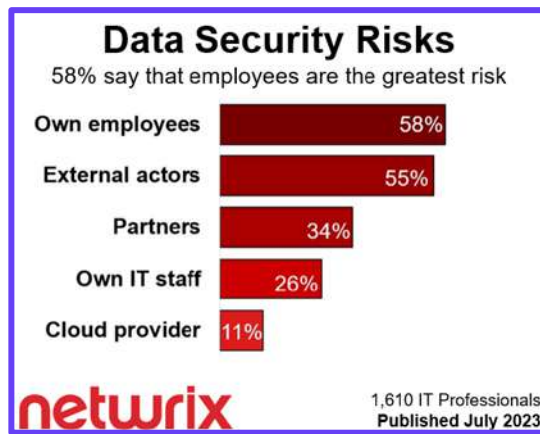
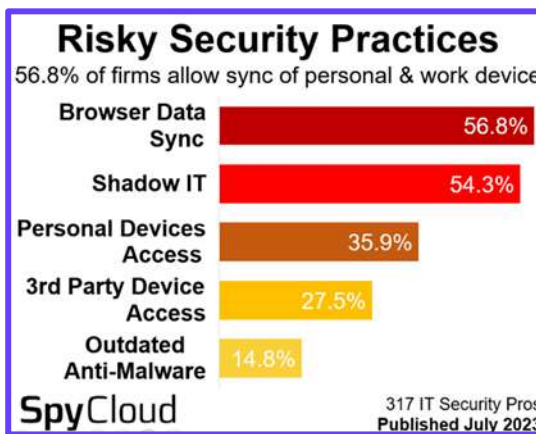
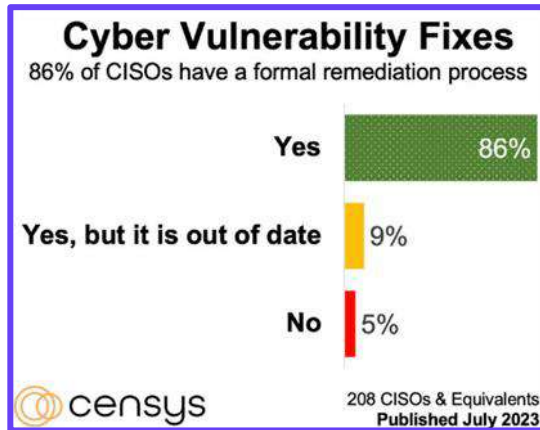
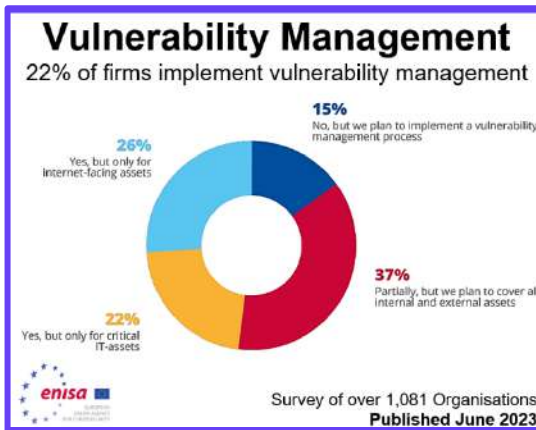
Cyber Insights: *Cyber Threats*

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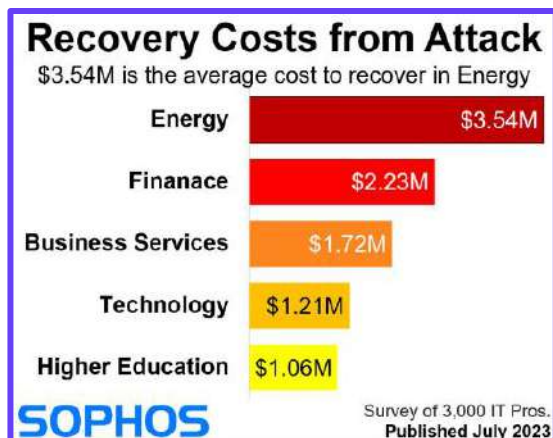
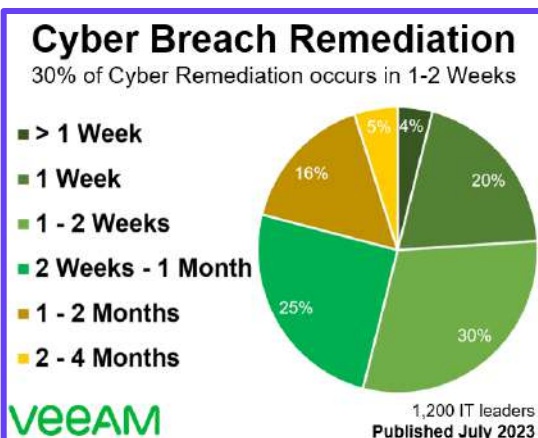
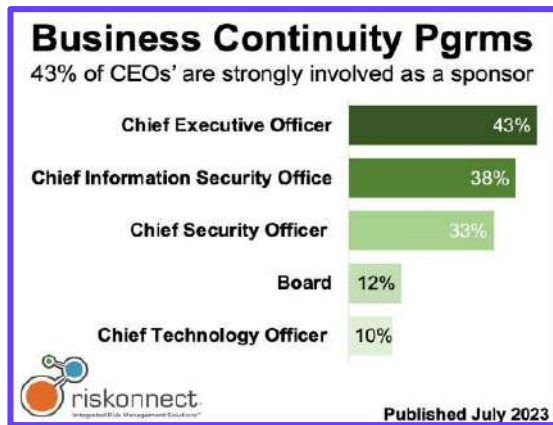
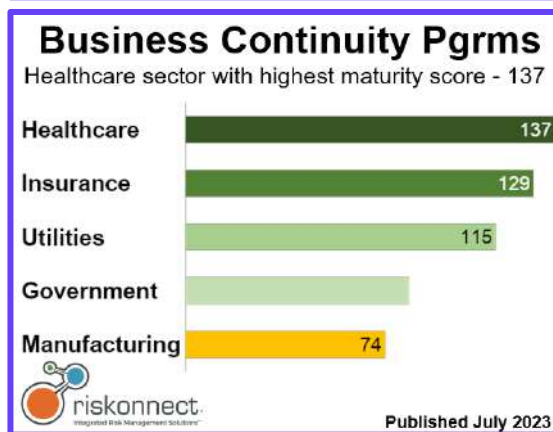
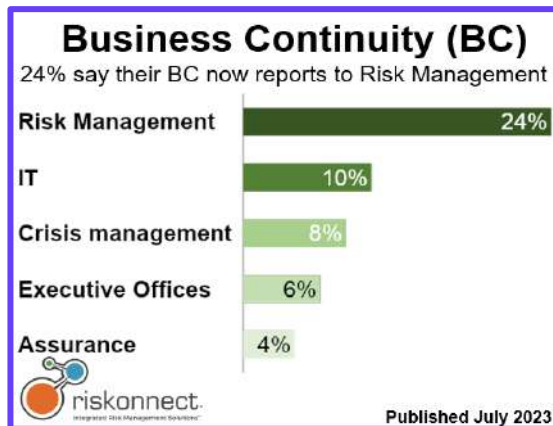
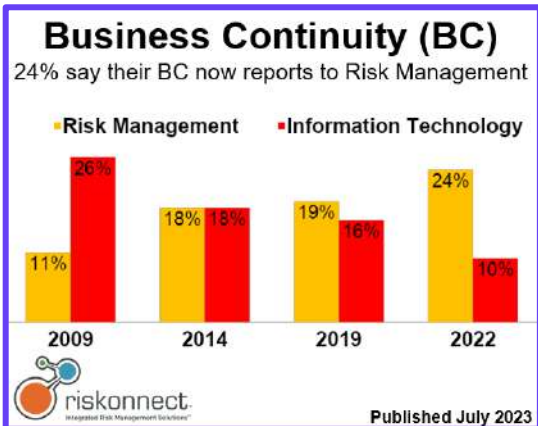
Cyber Insights: *Cyber Risk Management*

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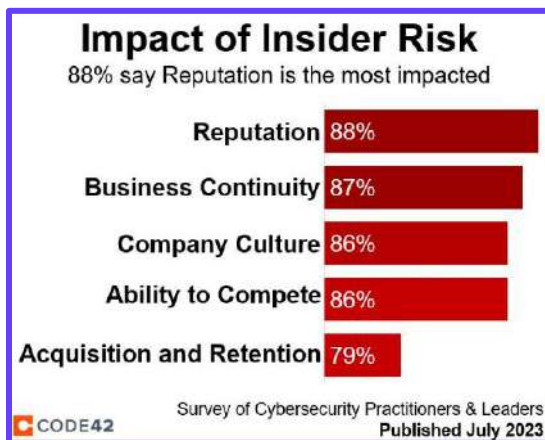
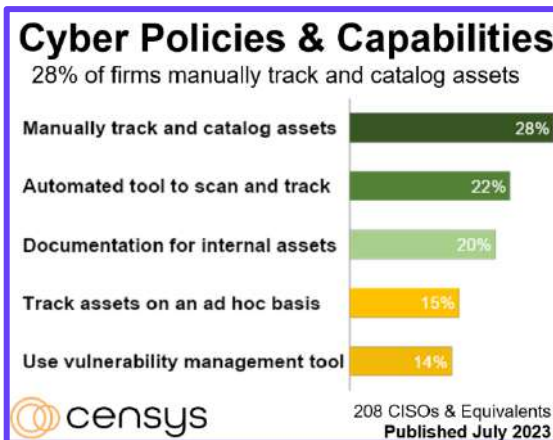
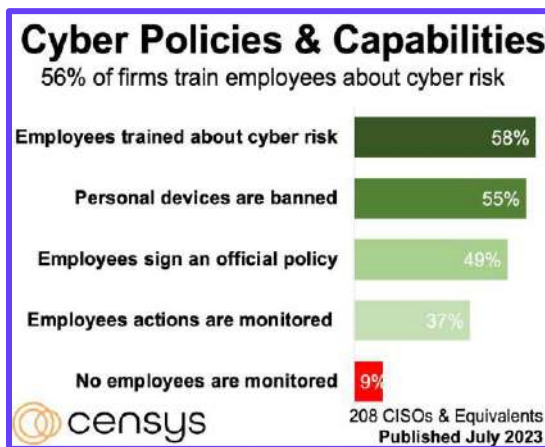
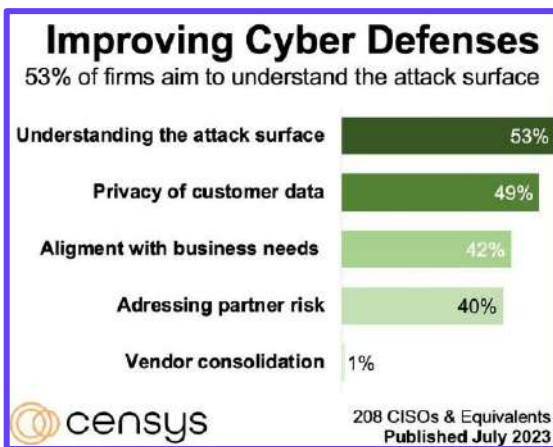
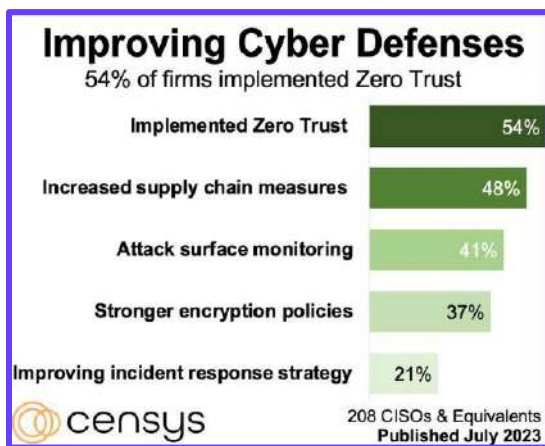
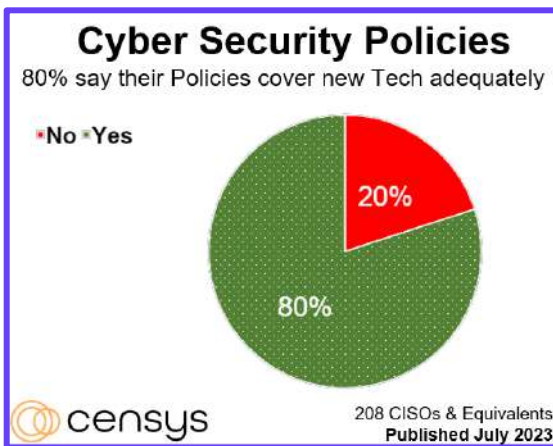
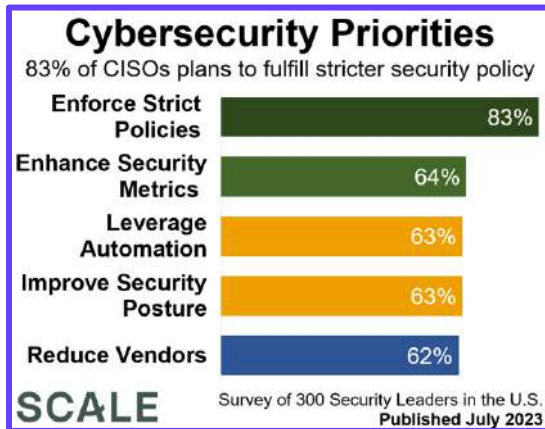
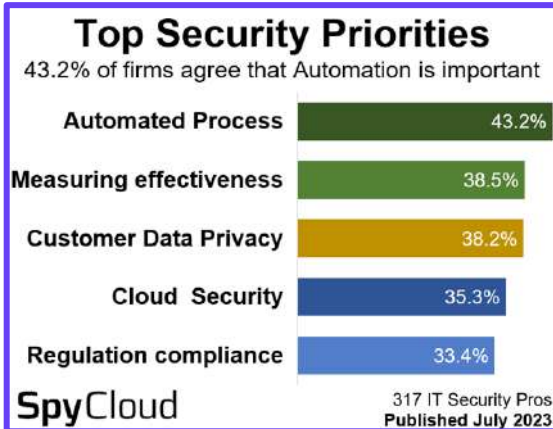
Cyber Insights: *Business Continuity*

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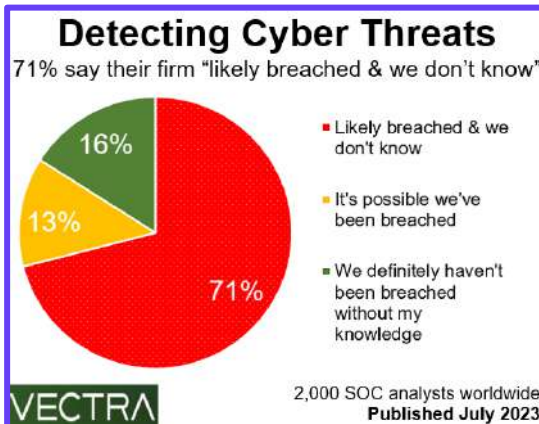
Cyber Insights: *Cyber Strategies*

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Cyber Insights: *Detecting Cyber Threats*

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How does regulator NYDFS decide which entities need extra attention?

"When a SecurityScorecard grade changes, that helps **prioritize** who to go after first."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

How does regulator NYDFS identify at-risk institutions?

"We use SecurityScorecard **daily**, to help our entities come up to the level they need to maintain **compliance**."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

How does regulator NYDFS see where firms have deficient cybersecurity?

"SecurityScorecard drives the **right questions**, that lead to the truth."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

How does regulator NYDFS gain a clear view of an entity's cybersecurity?

"Use SecurityScorecard **before you examine** an entity, to know a lot of information from the outside already."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

How does regulator NYDFS identify entities at risk of new exploits?

"We use SecurityScorecard to **see** which of our entities are at risk."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

How does regulator NYDFS help entities see where they're deficient?

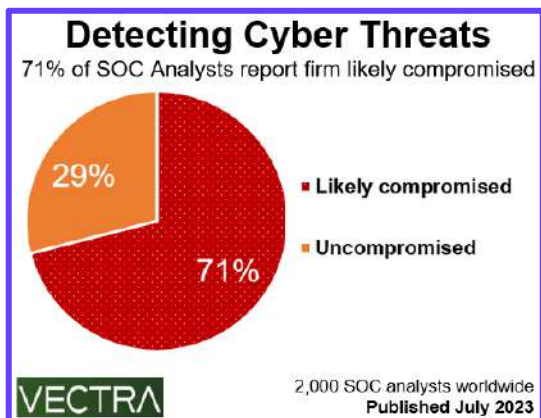
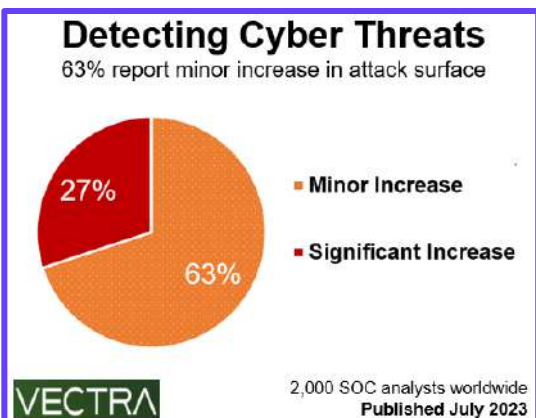
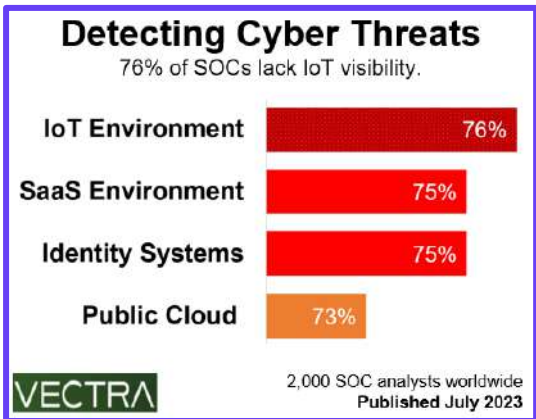
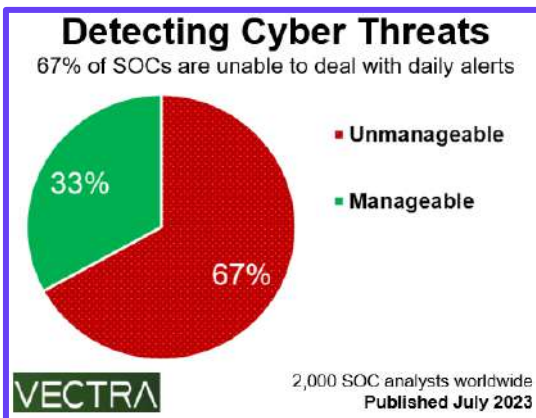
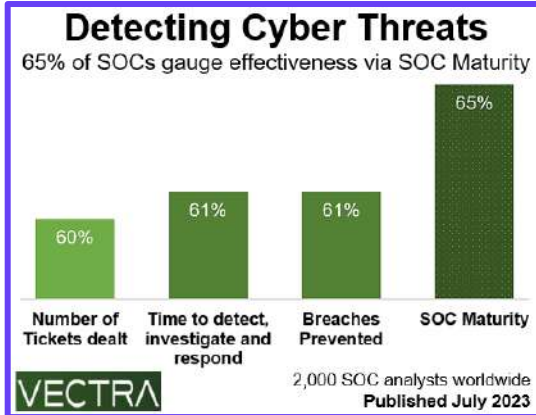
"SecurityScorecard gives us a **leg up** in an examination."

William Peterson
Assistant Deputy Superintendent
Cybersecurity Division, NY DFS

NY DFS Case Study by SecurityScorecard, July '23

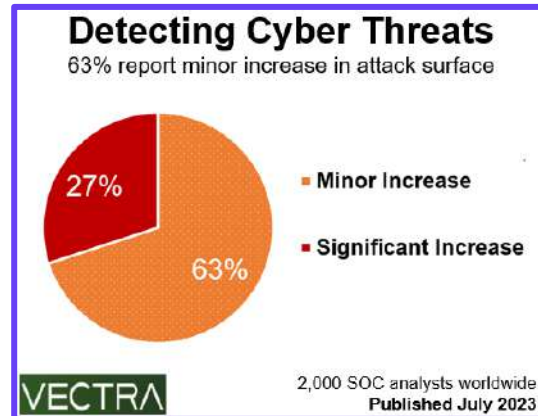
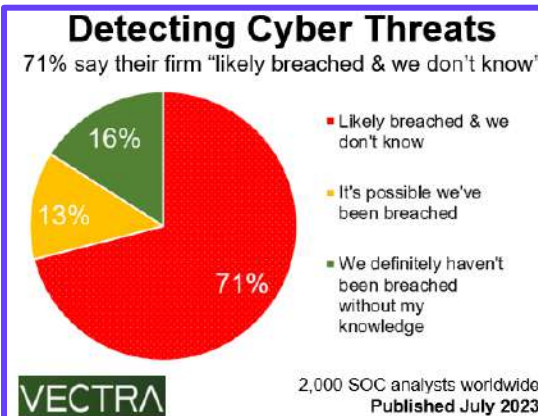
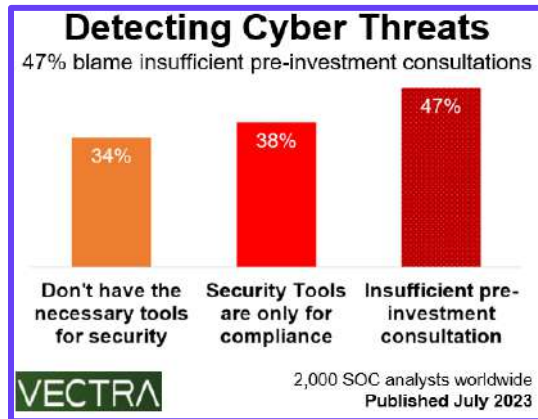
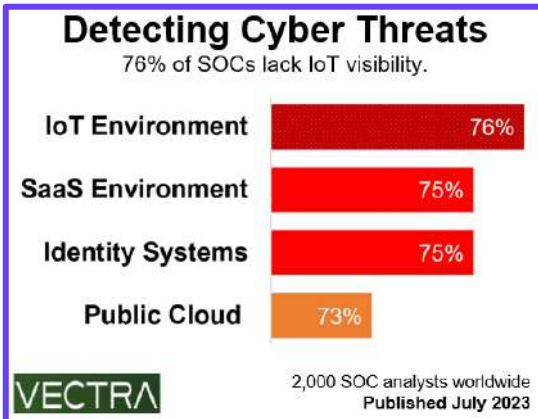
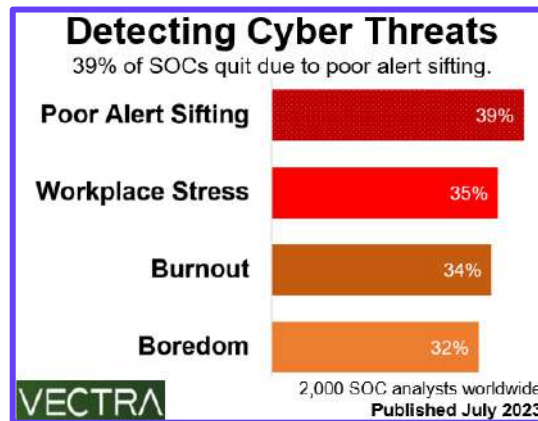
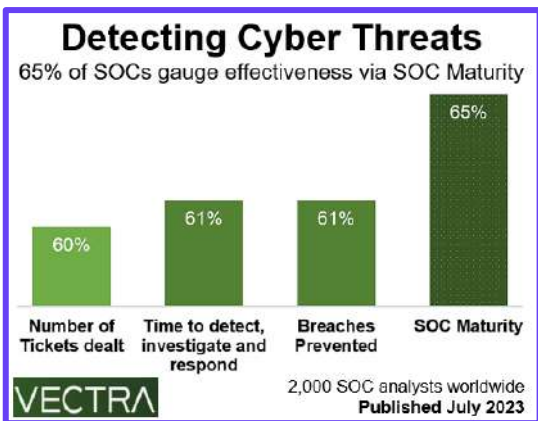
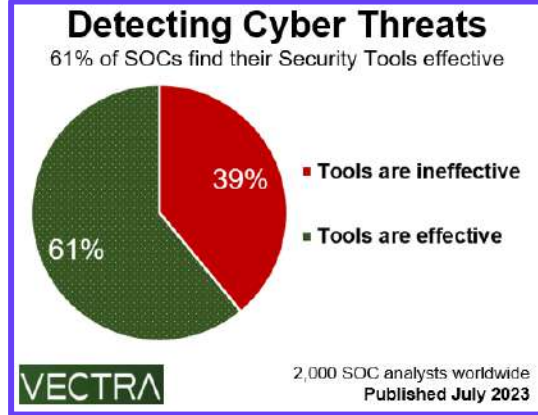
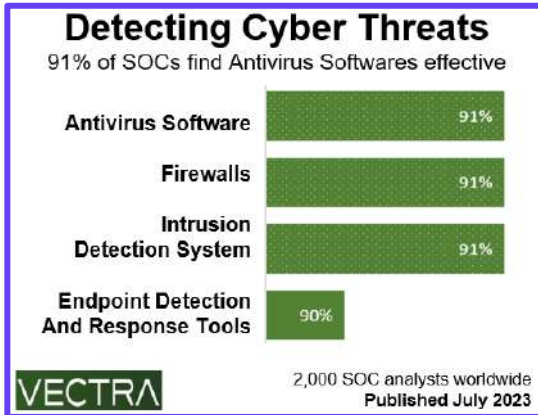
Cyber Insights: *Detecting Cyber Threats*

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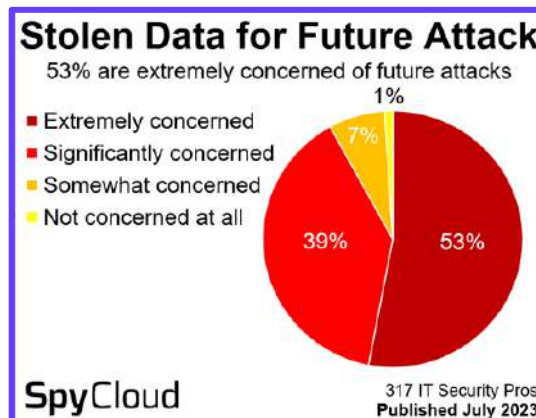
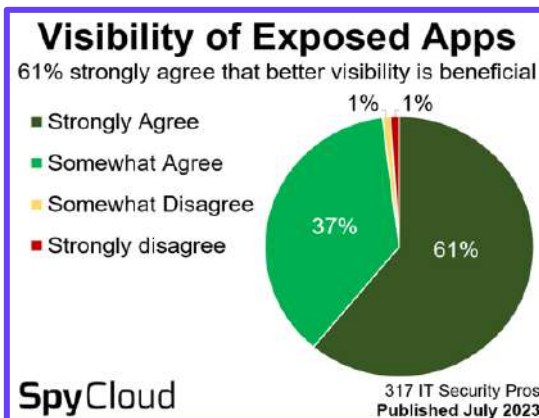
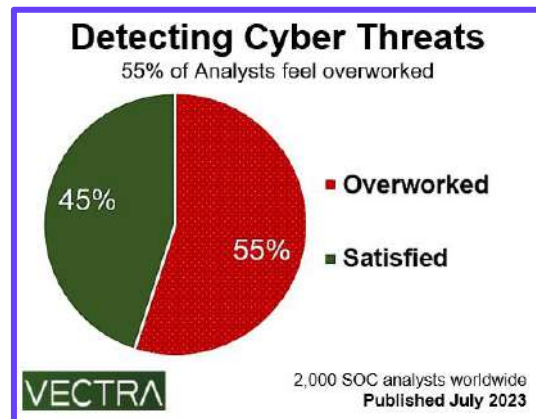
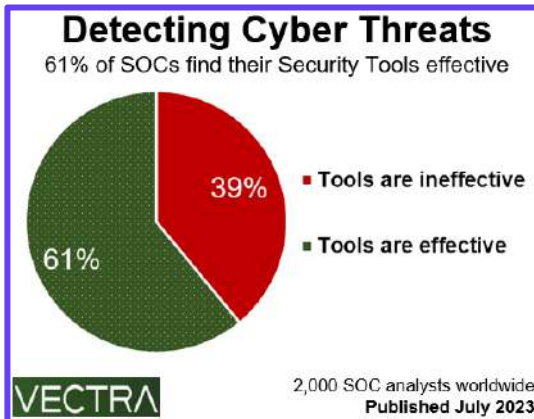
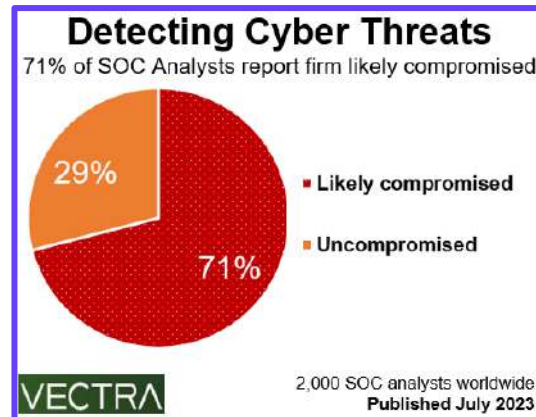
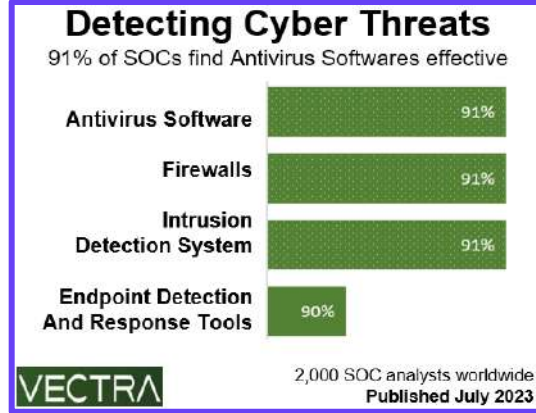
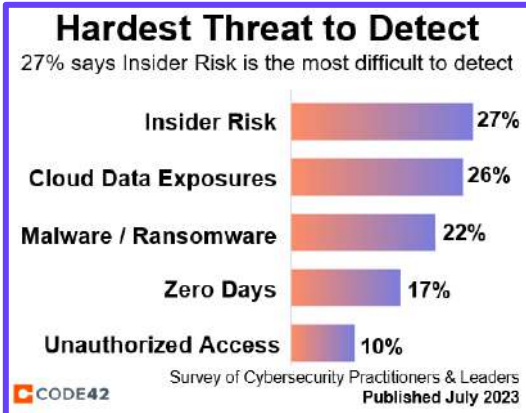
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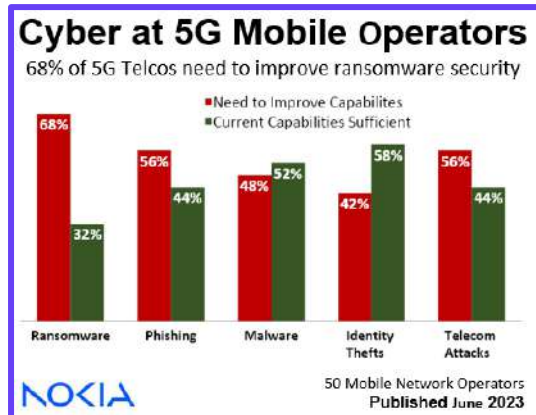
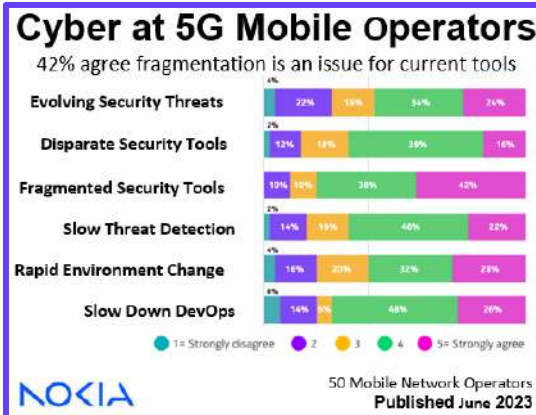
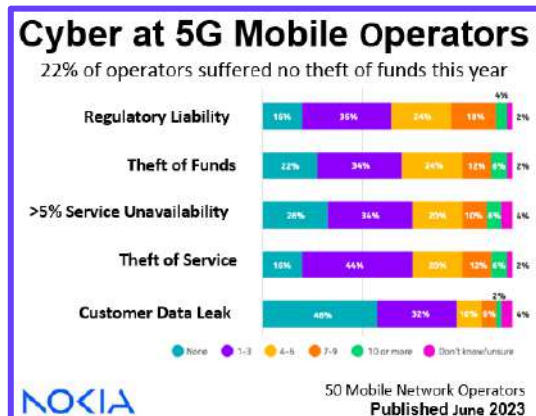
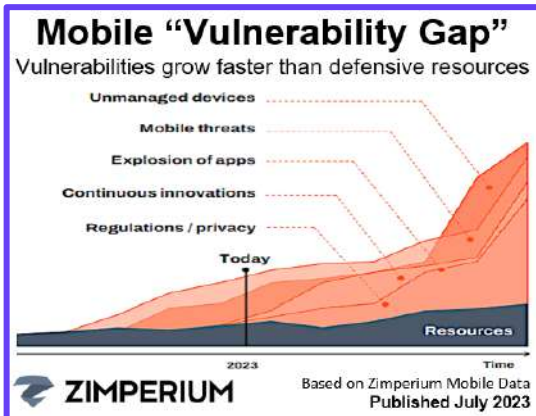
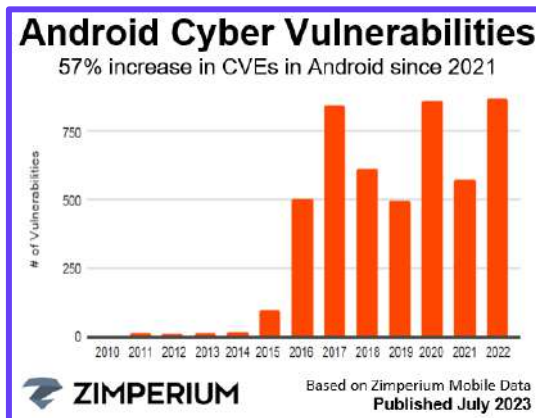
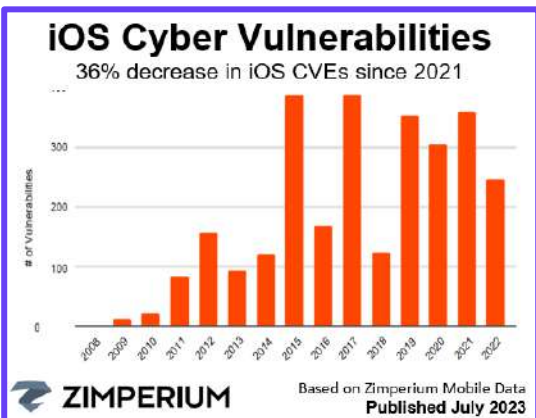
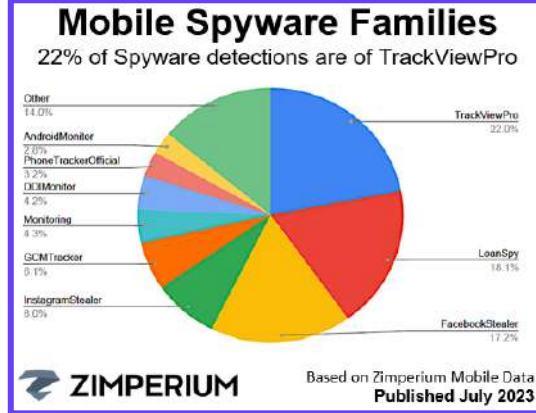
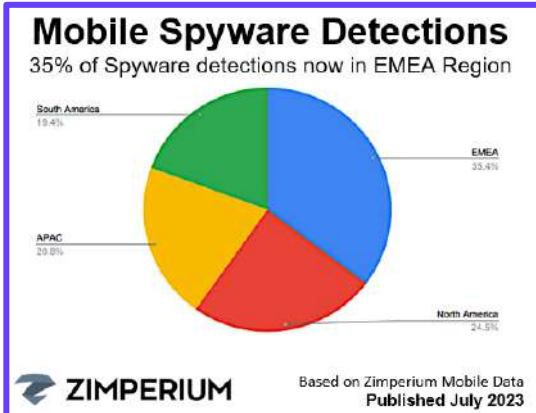
Cyber Insights: *Detecting Cyber Threats*

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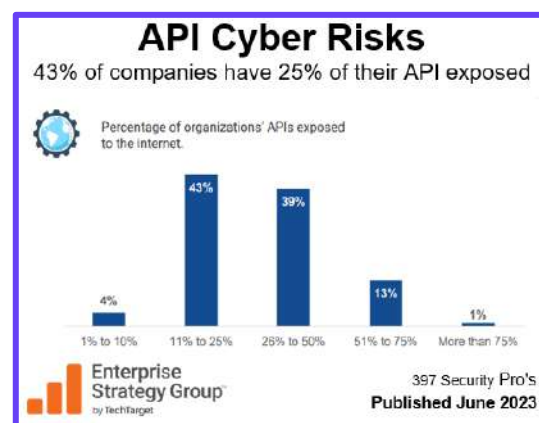
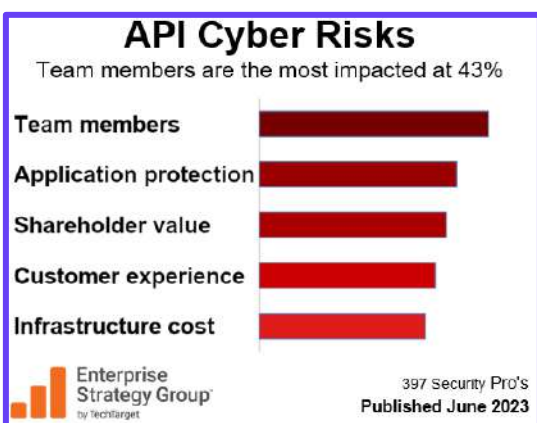
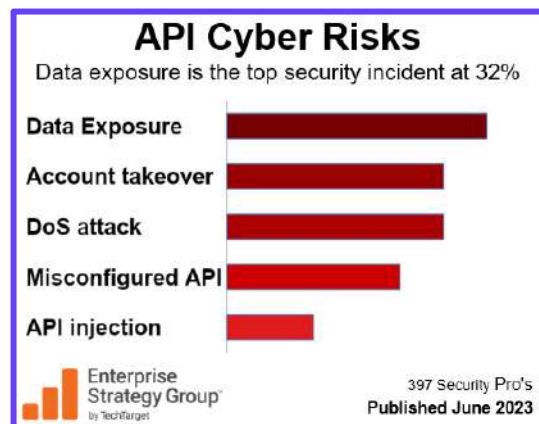
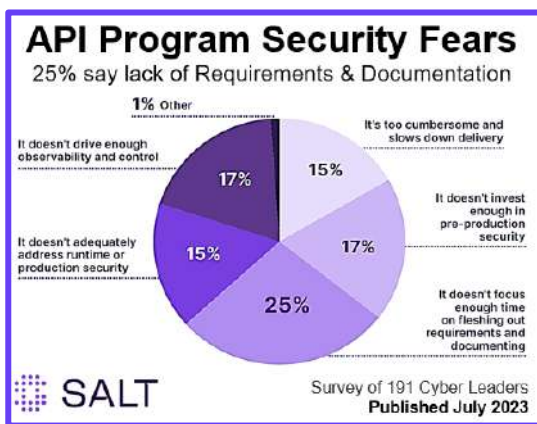
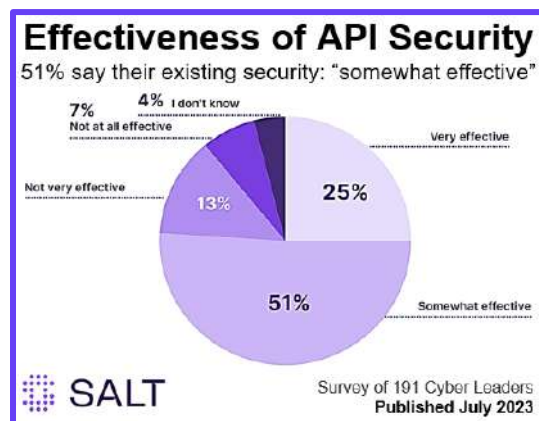
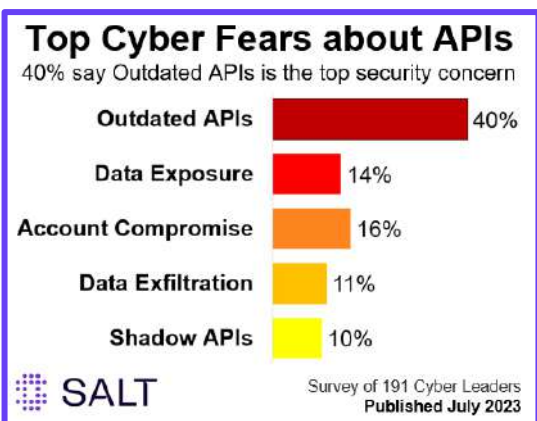
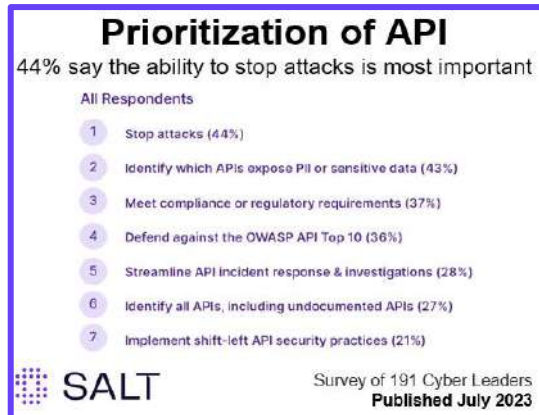
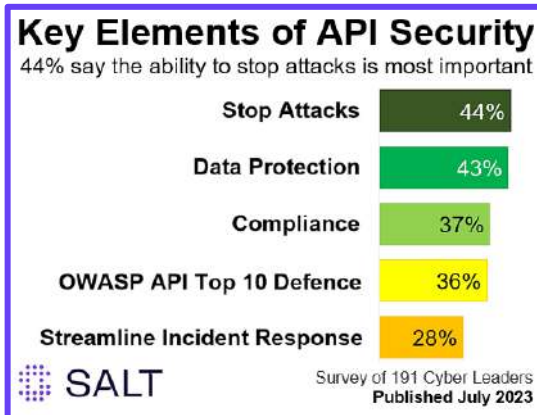
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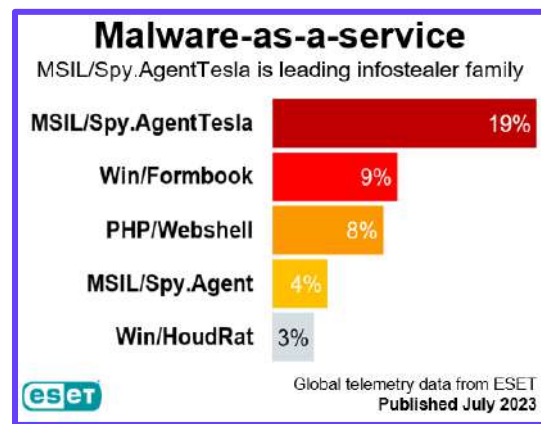
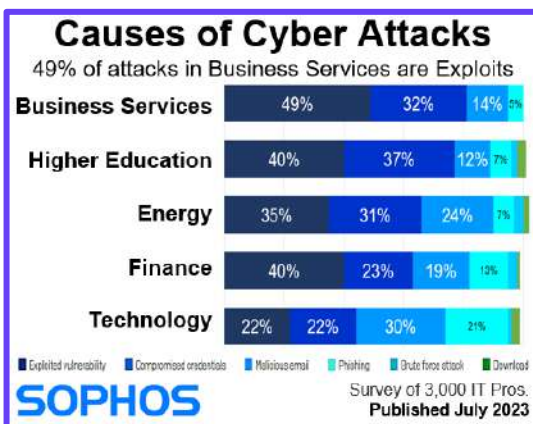
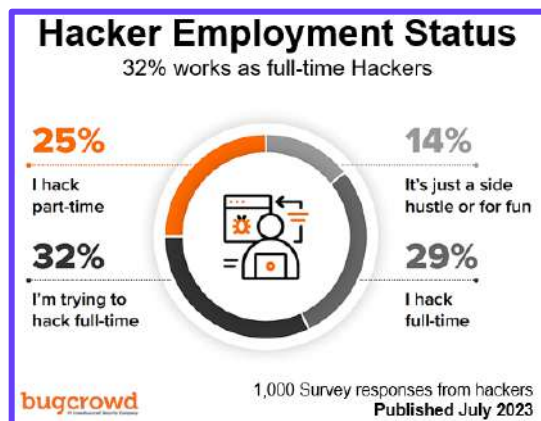
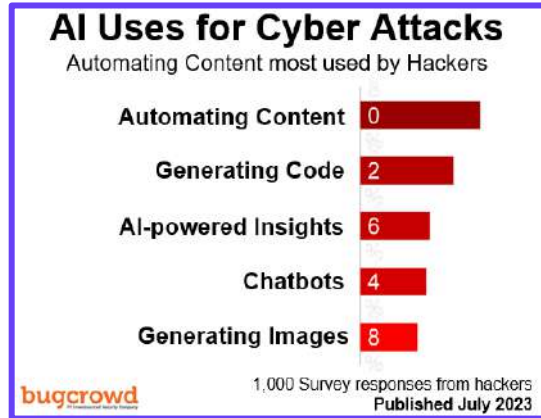
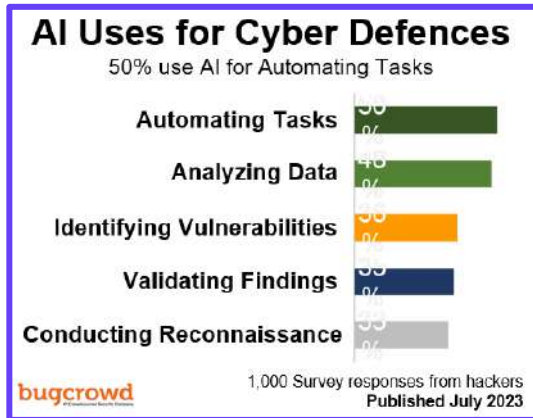
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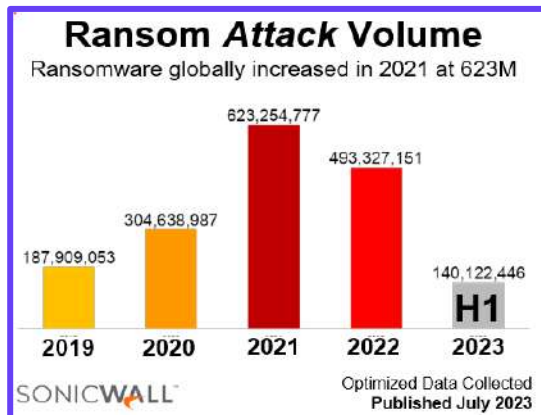
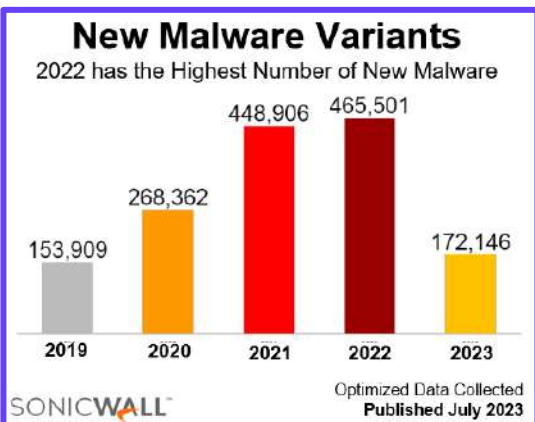
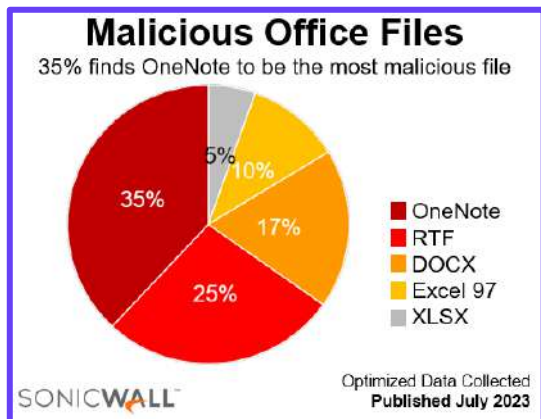
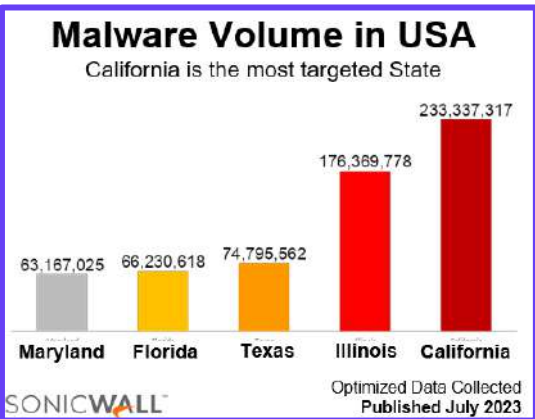
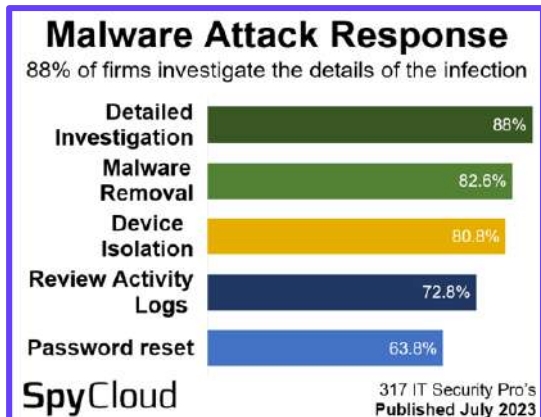
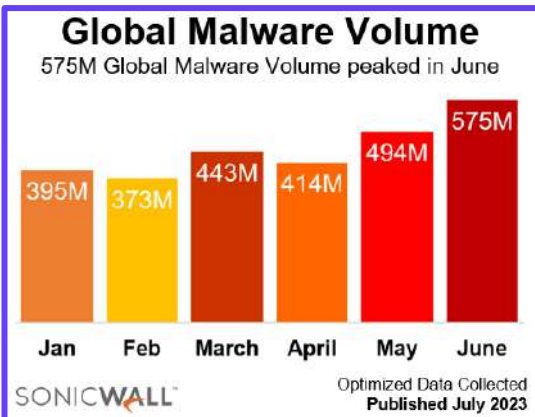
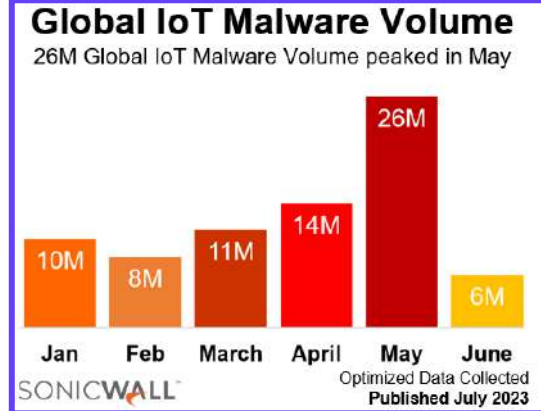
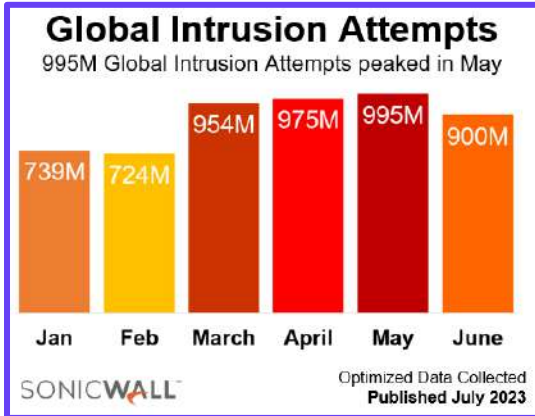
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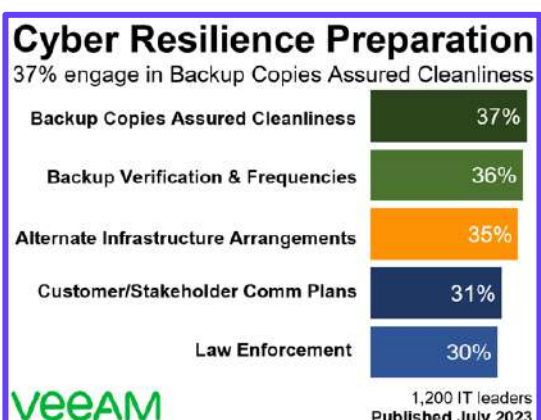
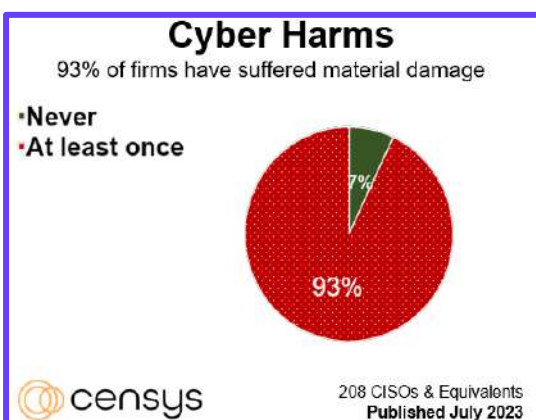
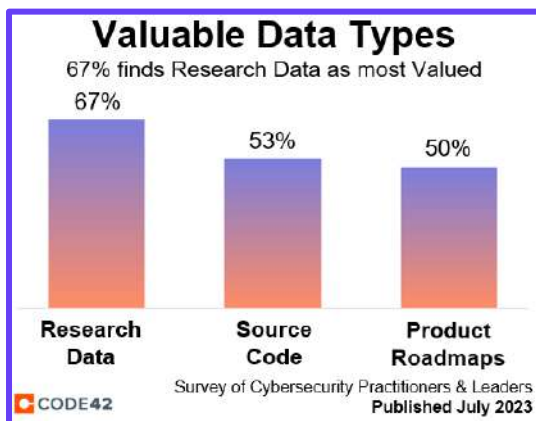
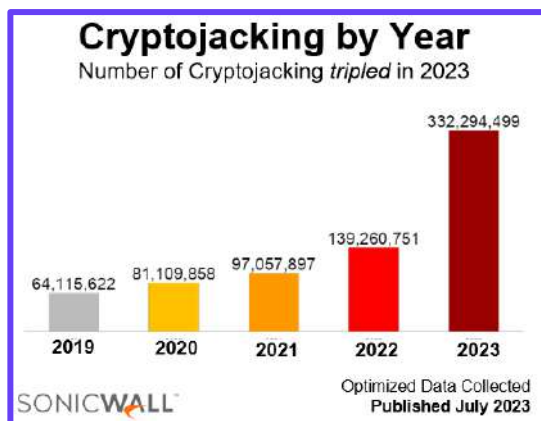
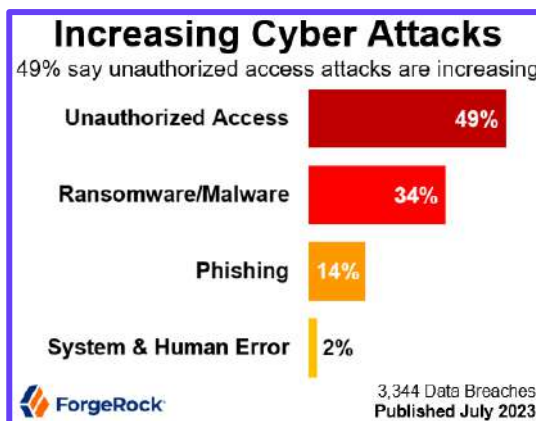
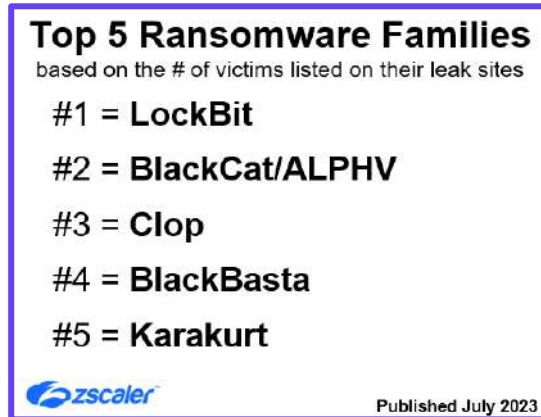
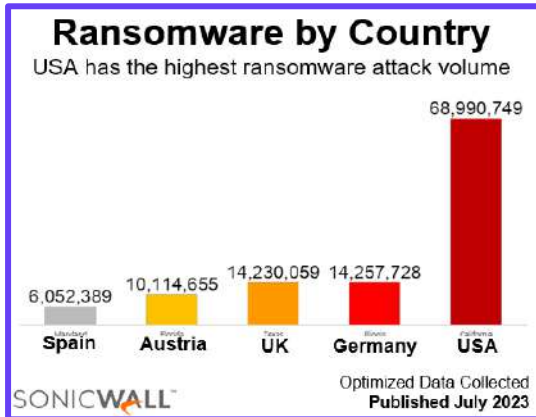
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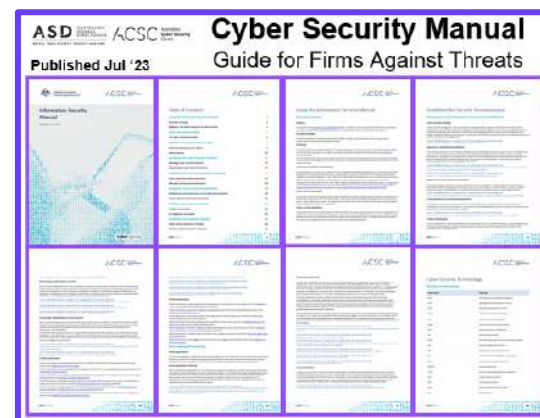
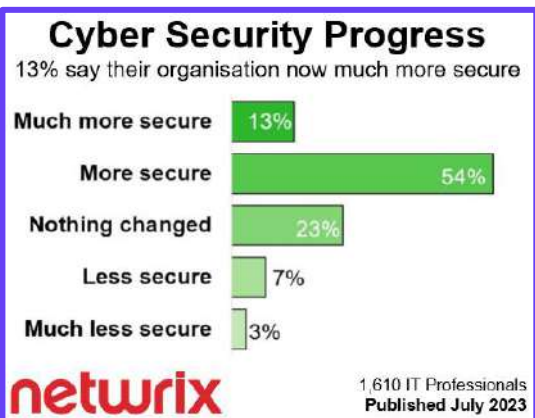
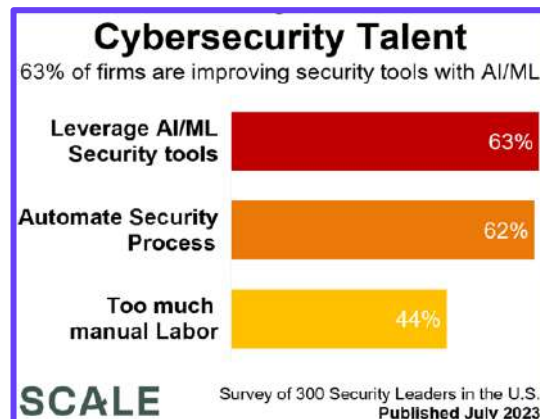
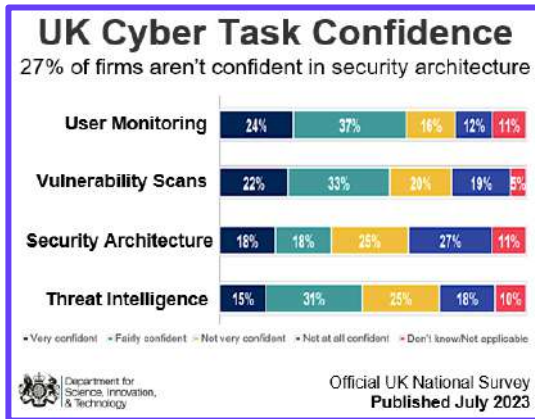
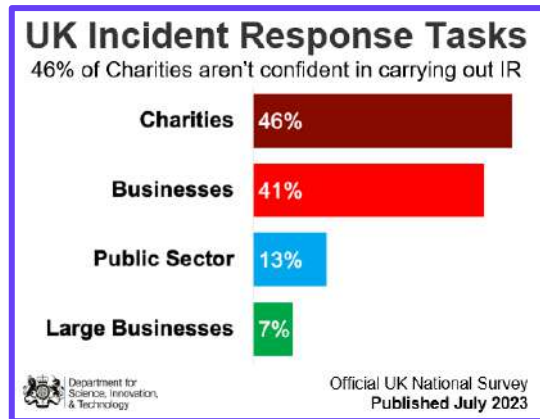
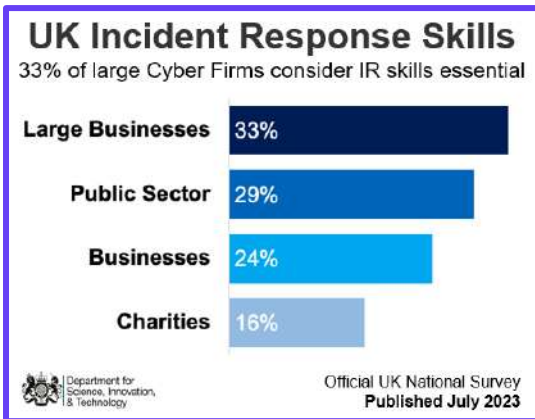
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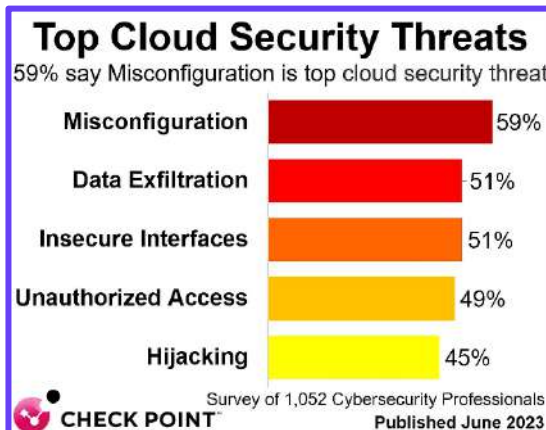
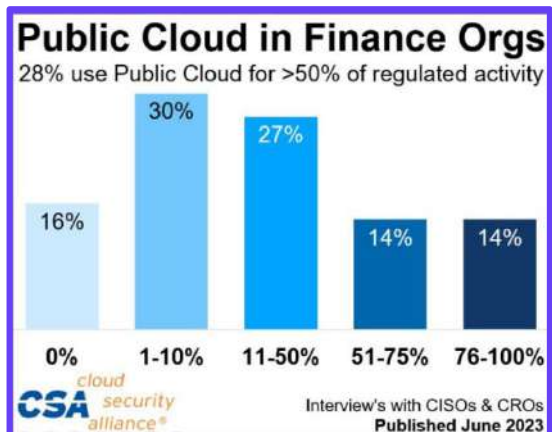
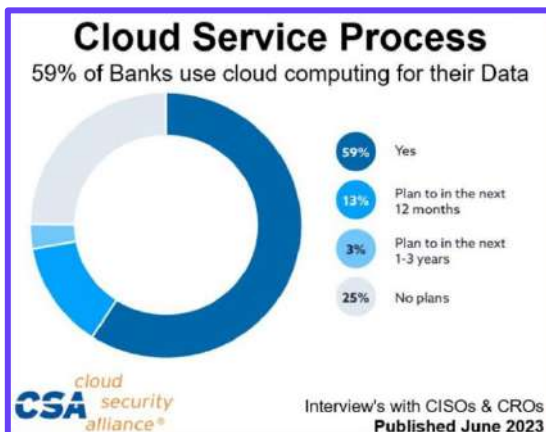
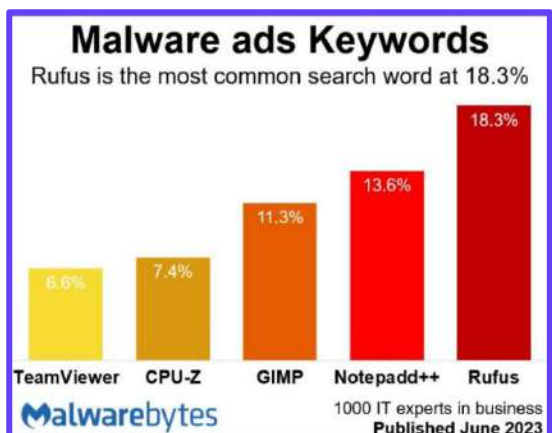
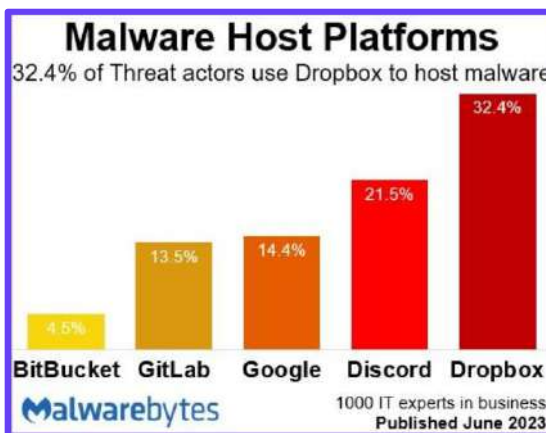
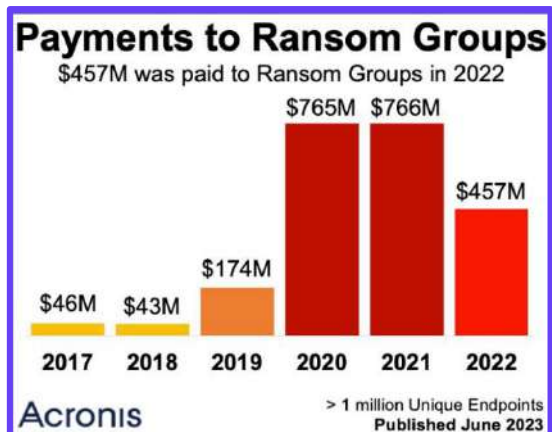
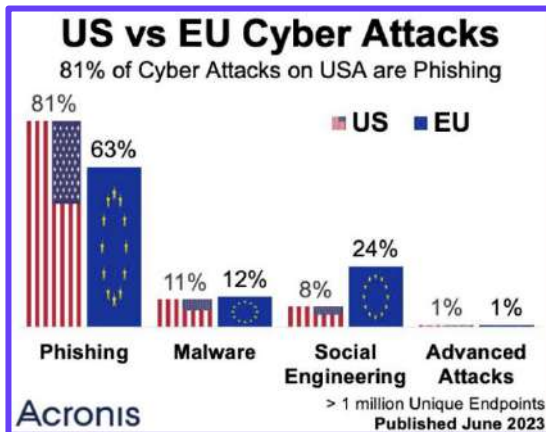
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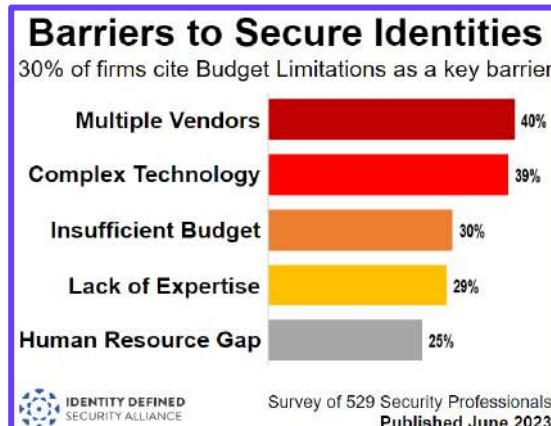
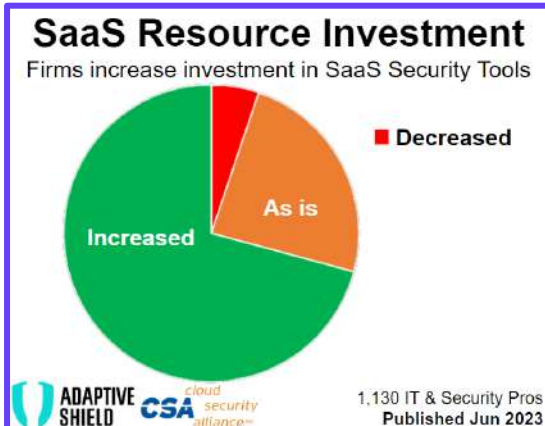
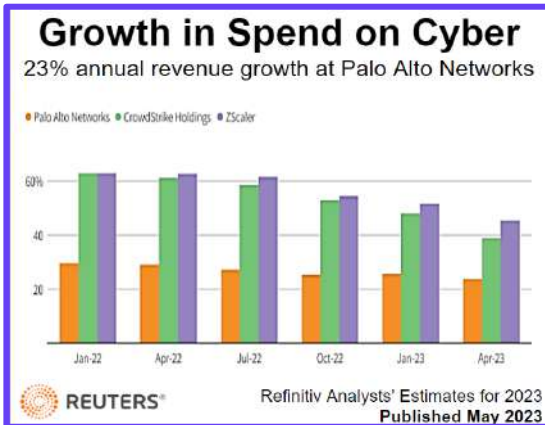
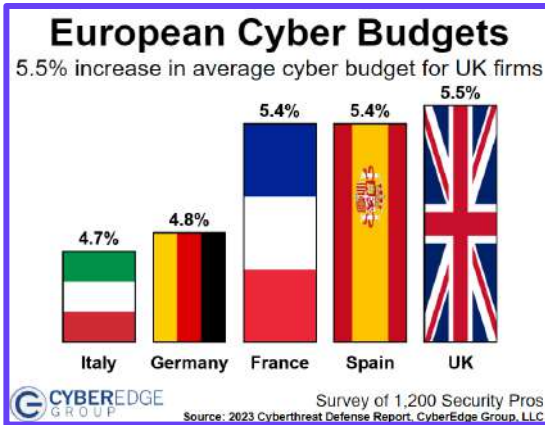
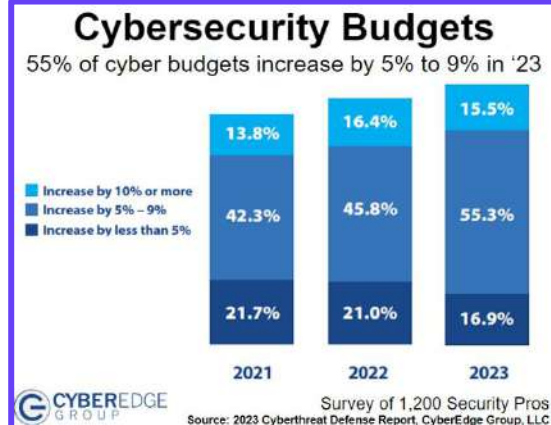
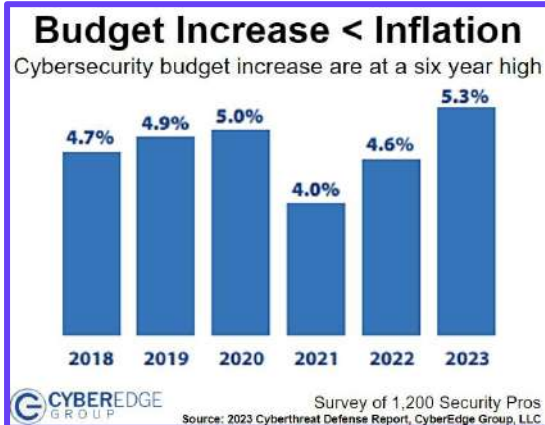
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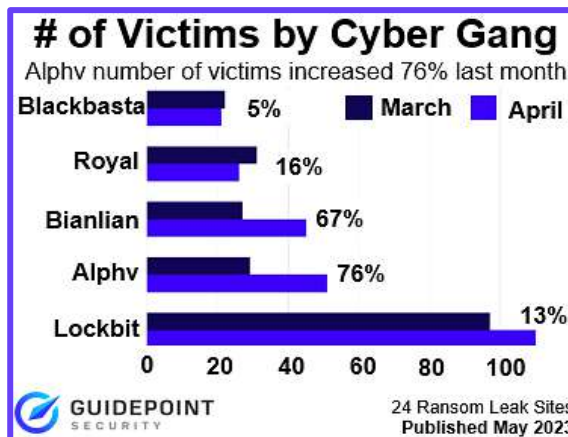
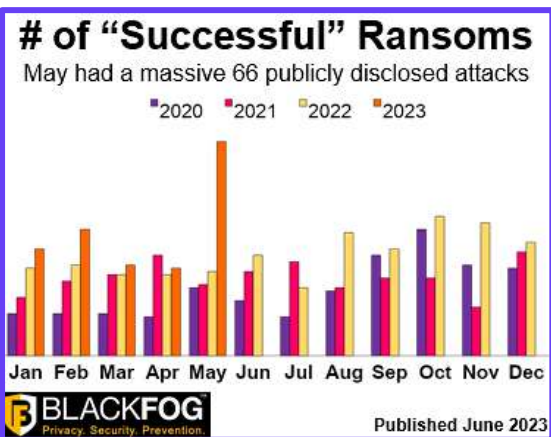
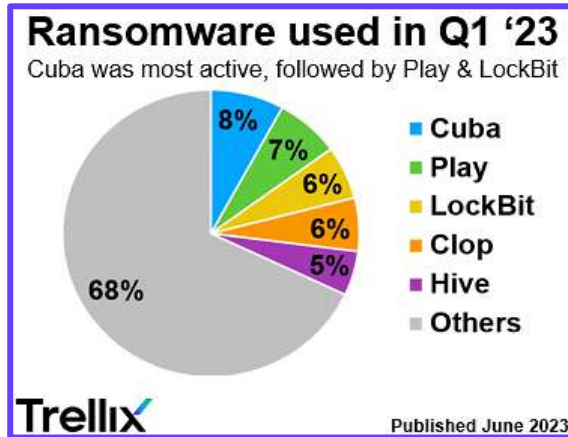
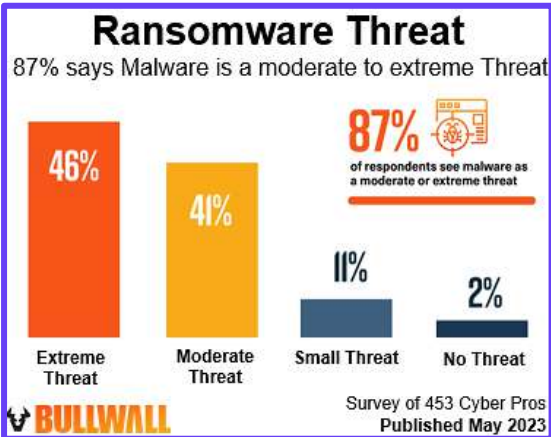
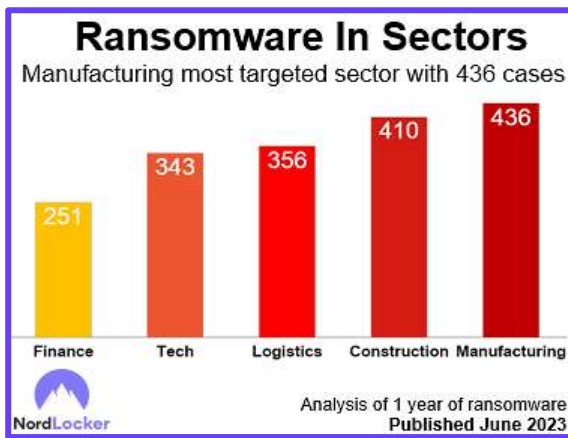
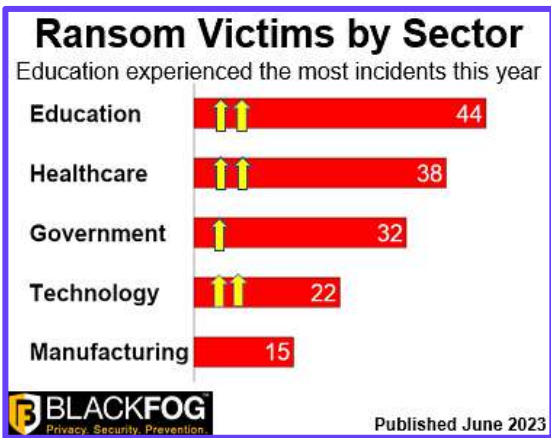
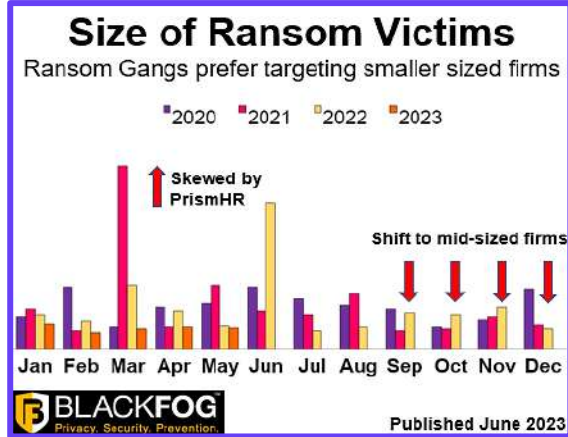
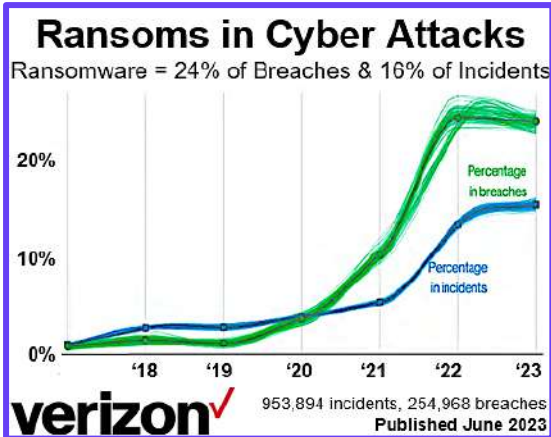
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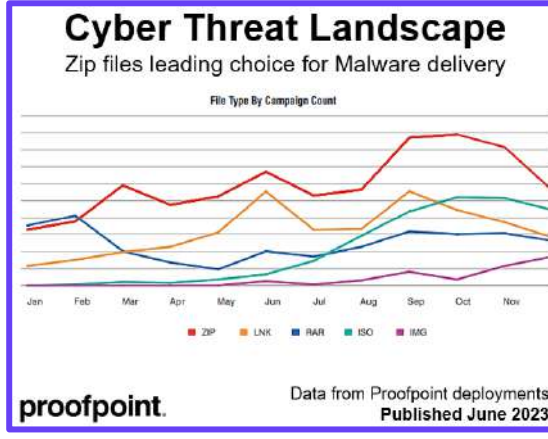
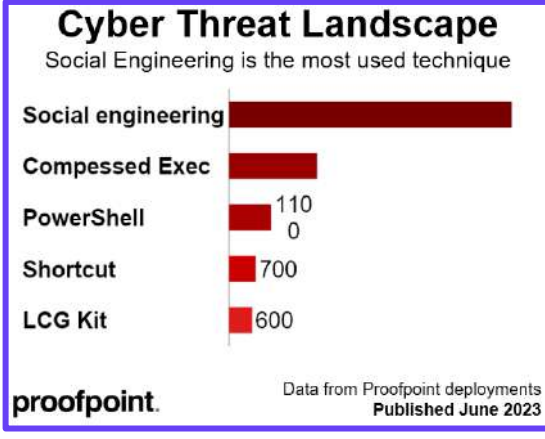
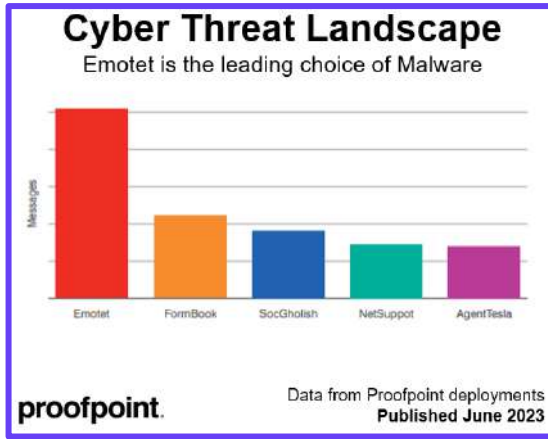
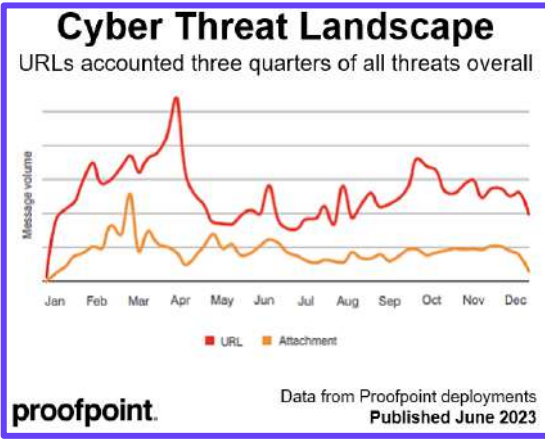
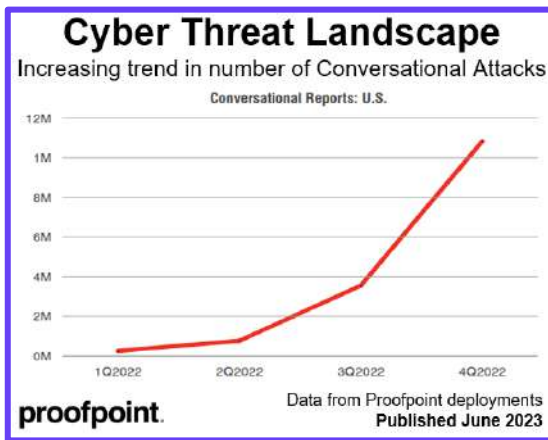
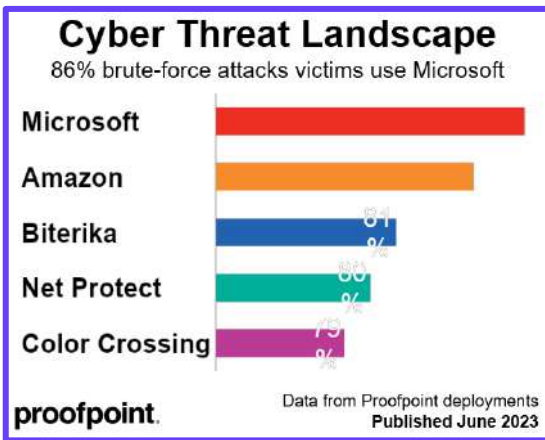
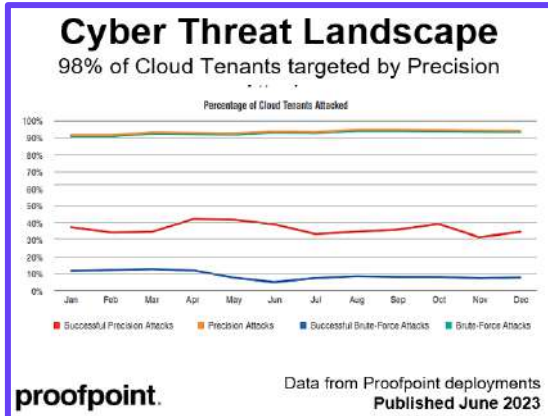
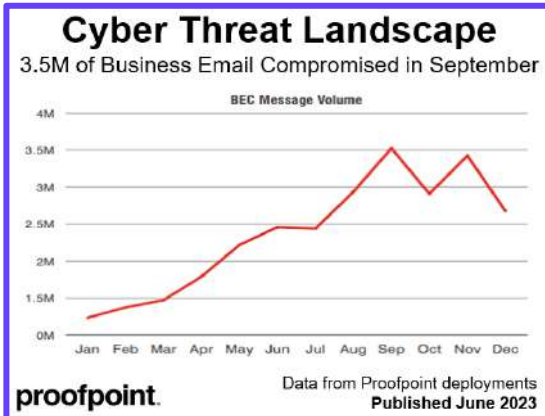
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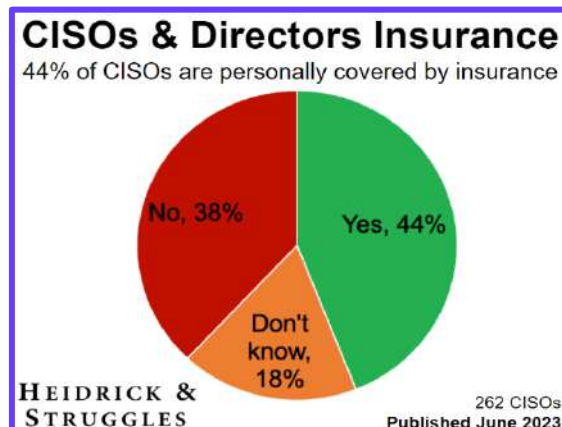
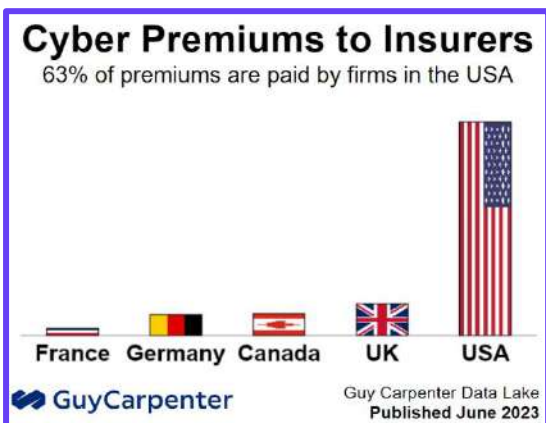
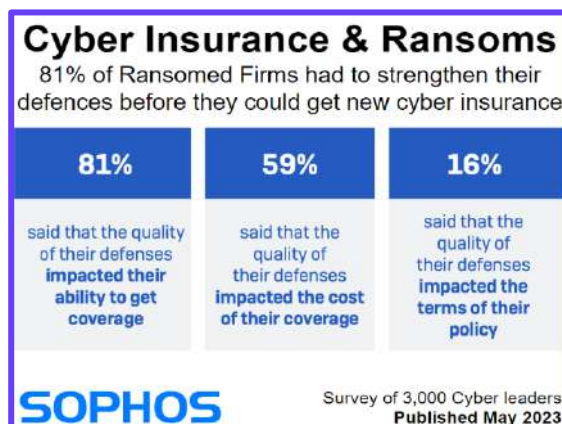
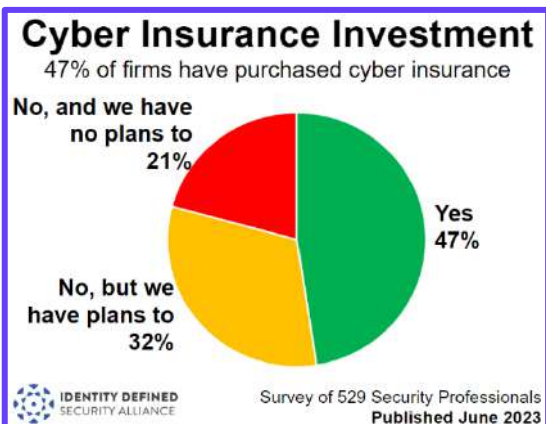
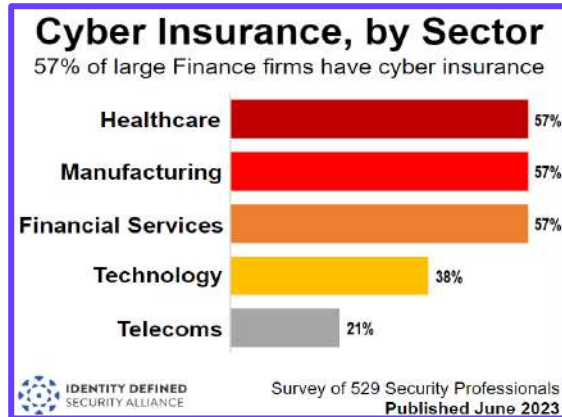
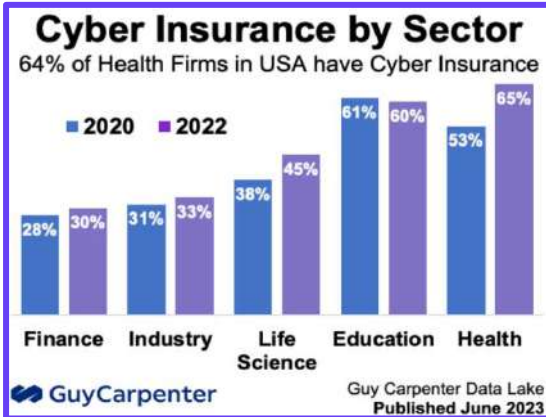
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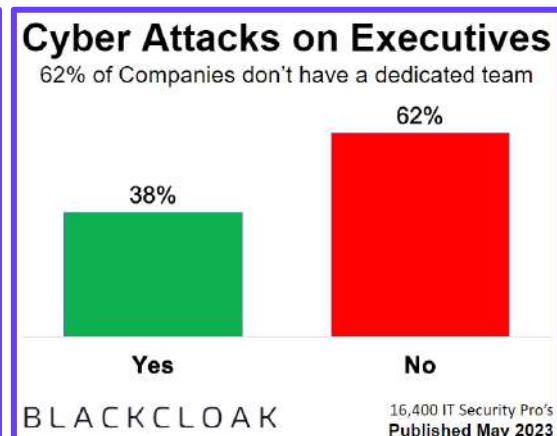
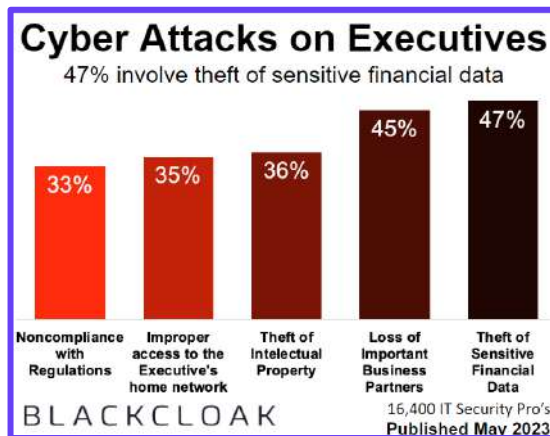
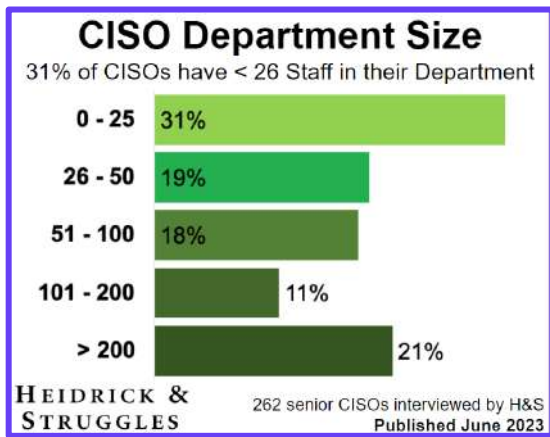
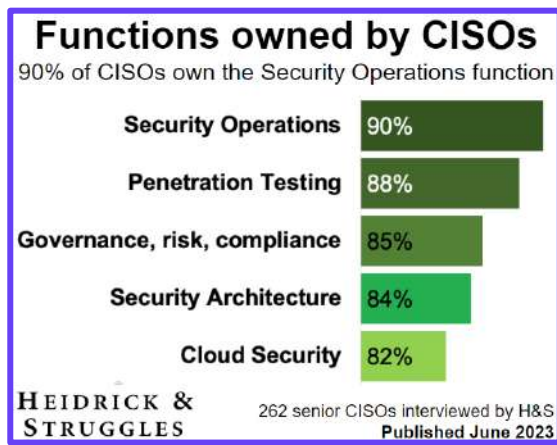
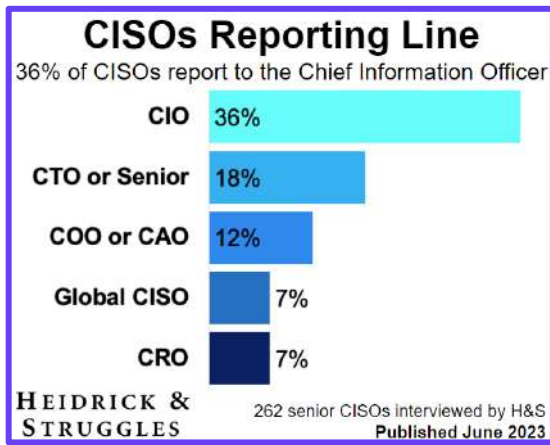
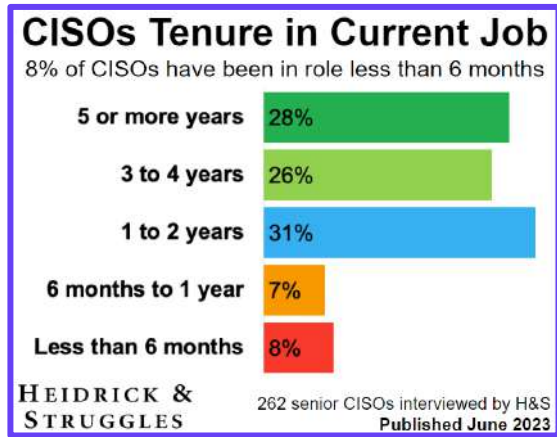
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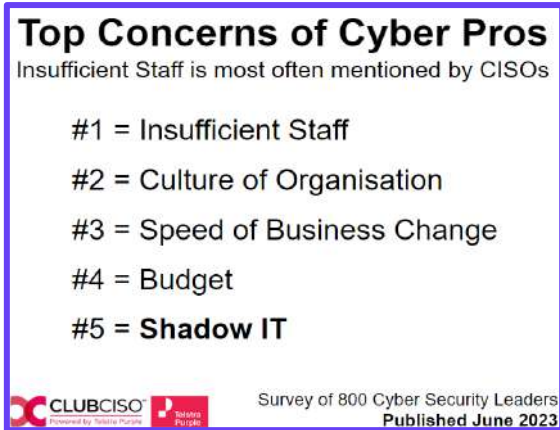
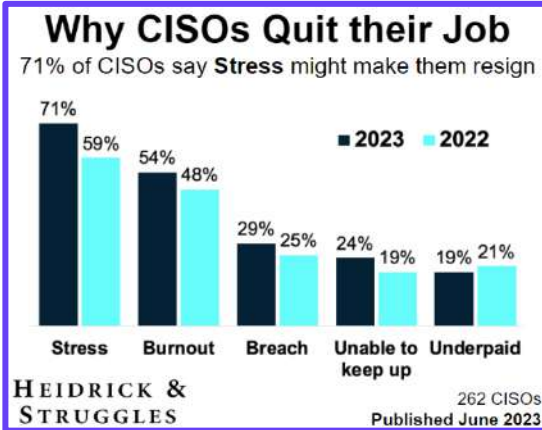
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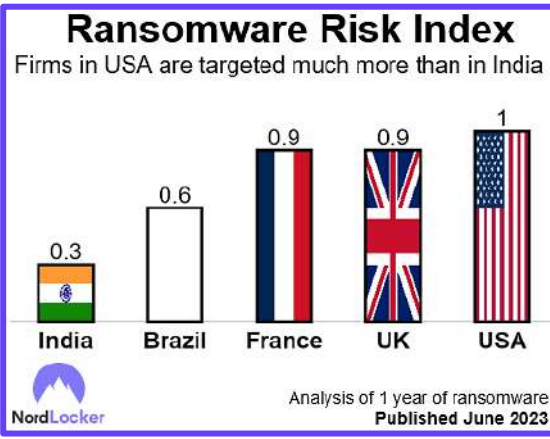
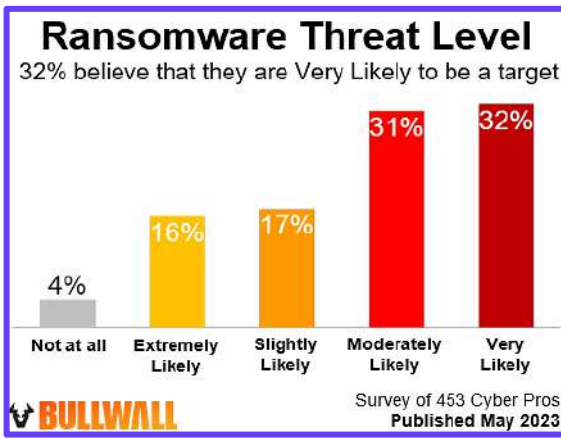
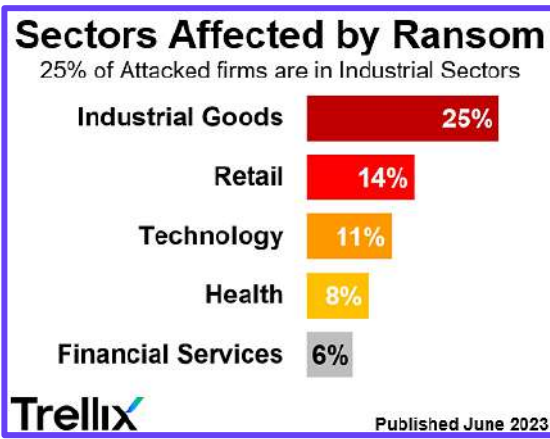
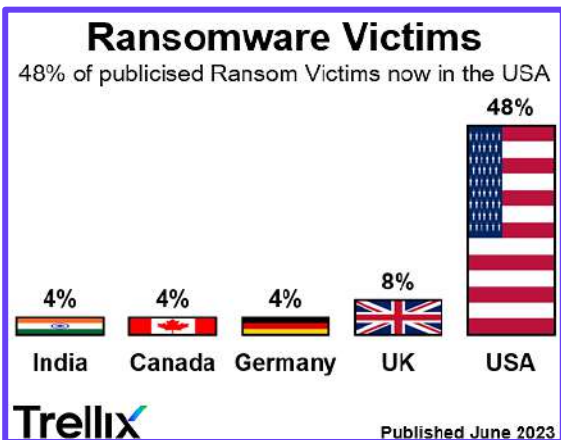
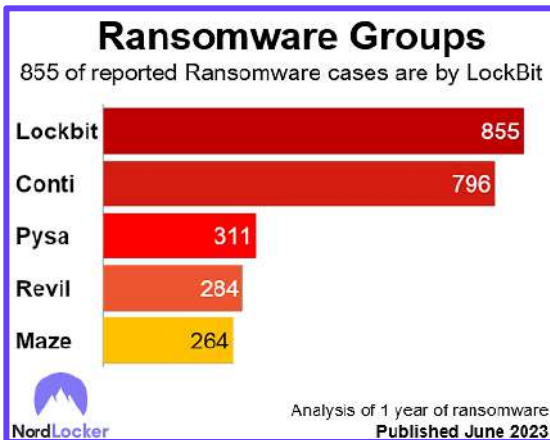
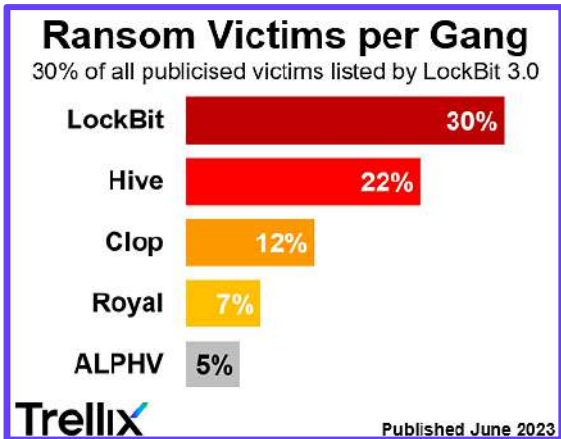
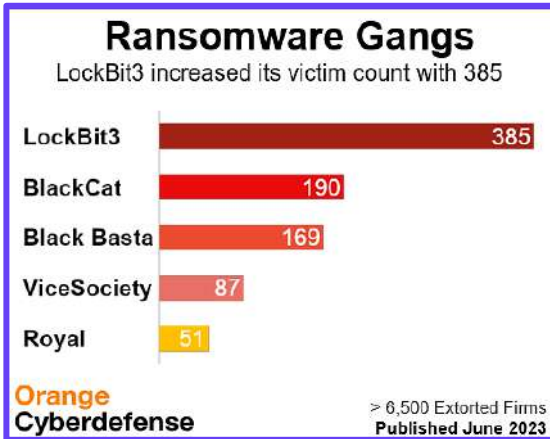
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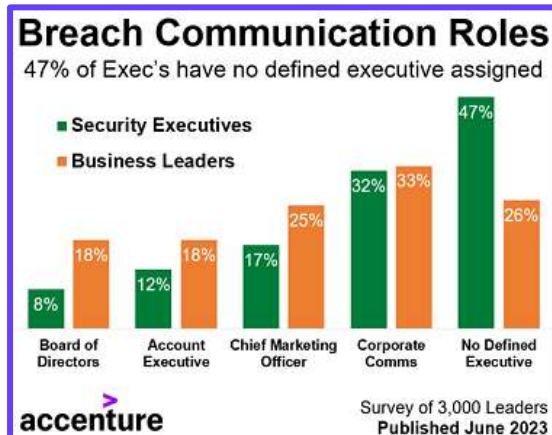
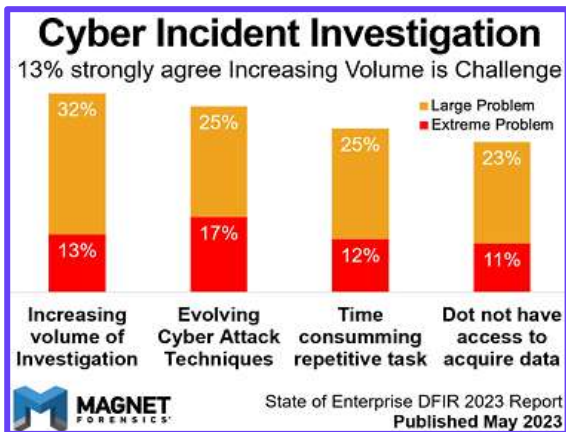
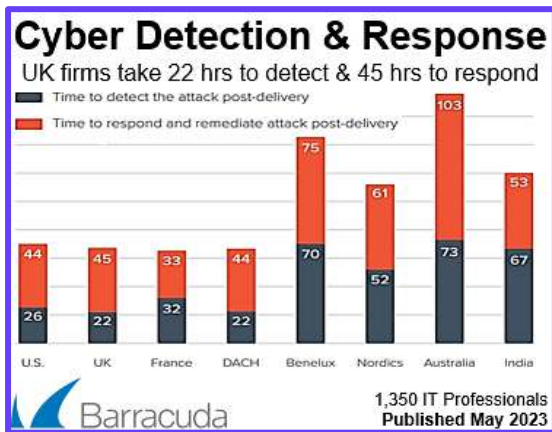
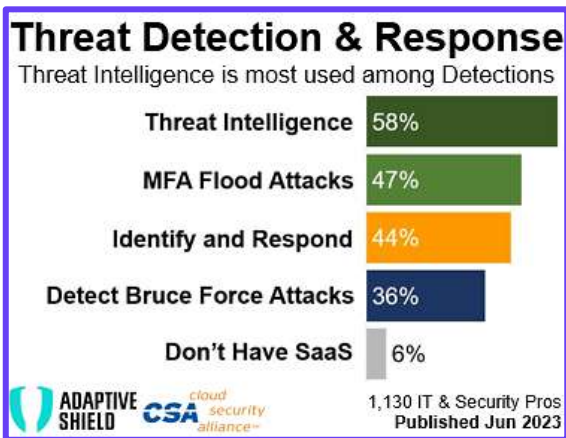
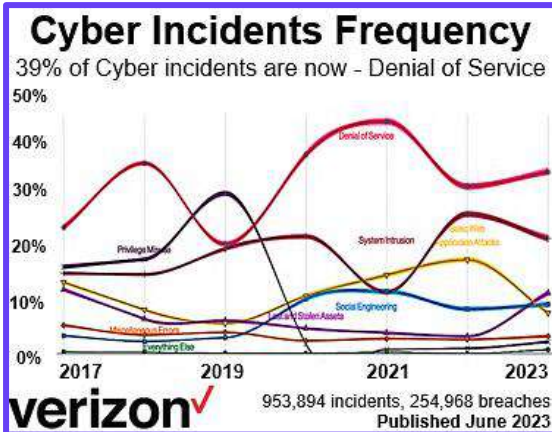
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Emerging Risks for Firms

Cloud Concentration & 3rd Party Viability at Top

<p>Potential Overinvestment</p> <ul style="list-style-type: none"> Sovereign Debt Crisis Market Effects from Higher Borrowing Costs Climate Activism 	<p>Prioritized Risks</p> <ul style="list-style-type: none"> Third-Party Viability Personal Data Regulatory Fragmentation New Extreme Weather Events Financial Planning Uncertainty Critical Infrastructure Failure Cloud Concentration Risk China Trade Tensions
<p>Deprioritized Risks</p> <ul style="list-style-type: none"> Wage-Price Spiral Rare Earth Metals Shortage Overzealous Cost Cutting Noncompetitive San Mass AI Availability Increased Employee Leverage Decline in Employee Proactivity 	<p>Potential Blind Spots</p> <ul style="list-style-type: none"> Workforce Planning Uncertainty Stagnation Expectations Evolving Sociopolitical Expectations

Gartner 321 Risk Mngrs. Published May 2023

Risk Management Cycle

4 stages: Risk, Relationship, Vulnerabilities, Quality

enisa Survey of over 1,081 Organisations Published June 2023

Cyber Risk Management

48% only implement controls for critical functions

accenture Survey of 3,000 Leaders Published June 2023

Vulnerability Management

22% of firms implement vulnerability management

enisa Survey of over 1,081 Organisations Published June 2023

Mitigating Cyber Threats

42% say MFA is the most important technology

Multi-factor Authentication	42.3%
Endpoint Detection & Response	41.8%
Email Encryption	36.2%
Risk-based Authentication	32.5%
Network Segmentation	28.7%

CYBEREDGE GROUP Survey of 1,200 Security Pros
Source: 2023 Cyberthreat Defense Report, CyberEdge Group, LLC

Cyber Change Makers

Top operational practices for strong cybersecurity

- #1 = **Excel** at integrating cybersecurity
- #2 = **Leverage** cybersecurity as-a-service
- #3 = **More Commitment** to protect
- #4 = **Rely** more on automation

accenture Survey of 3,000 Leaders Published June 2023

Achieving Cyber Resilience

33% of firms have confidence in their capability

importance of knowing workforce can recover from incident	69%
effectiveness at knowing	58%
confidence in capability to recover incident	33%

OSTERMAN RESEARCH **IMMERSIVELABS** 570 Senior Security Pro's Published June 2023

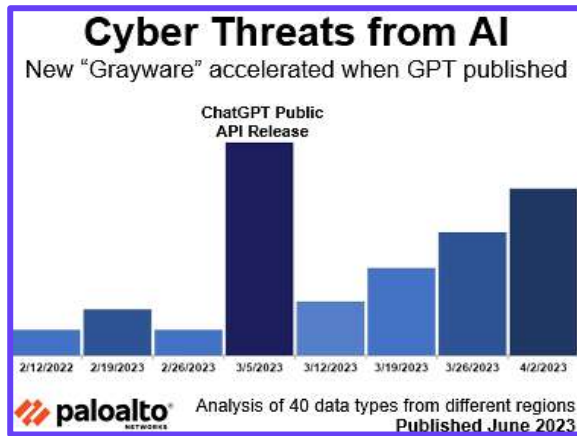
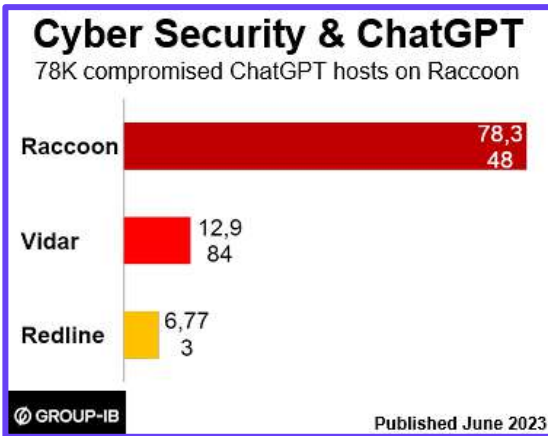
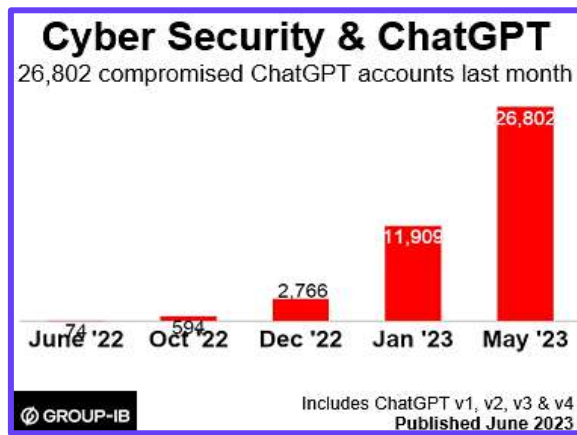
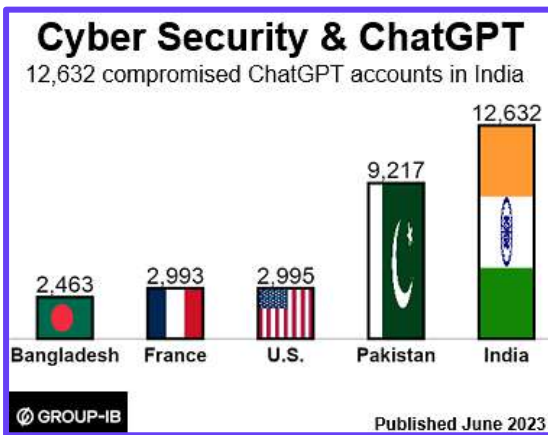
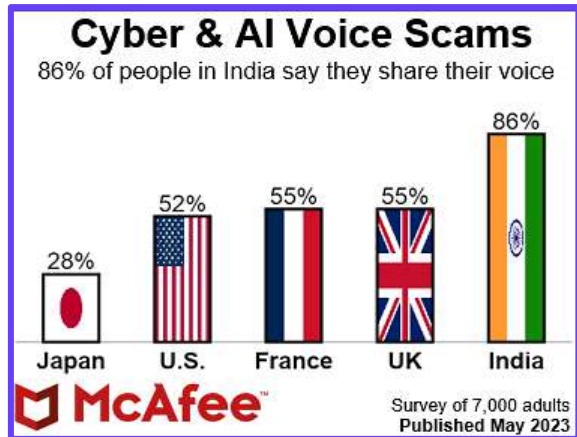
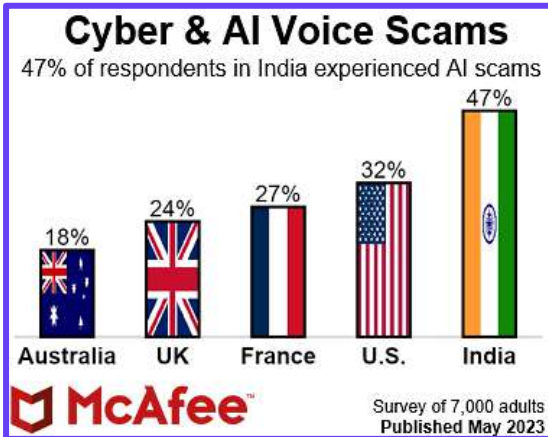
Cyber & Firm Resilience

How Cyber Drives Resilience

accenture Published June 2023

Cyber Insights: *AI Cyber Security*

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Cybersecurity for AI

ENISA framework

Published Jun '23

enisa

AI & Cybersecurity

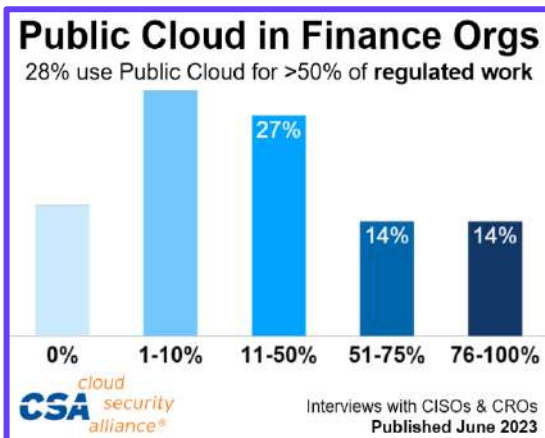
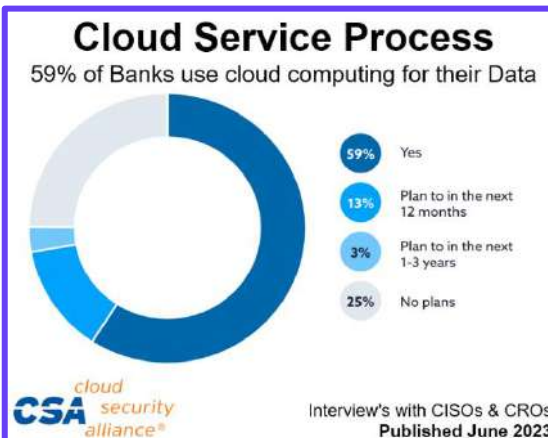
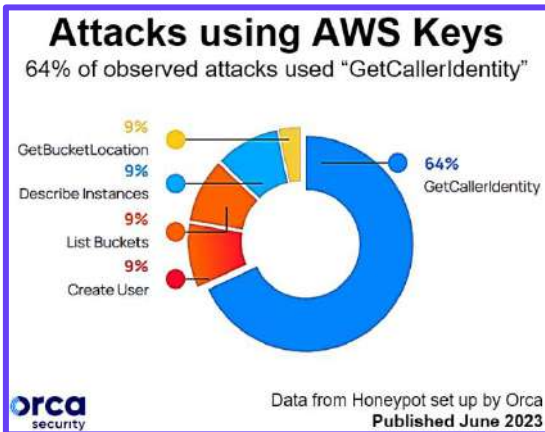
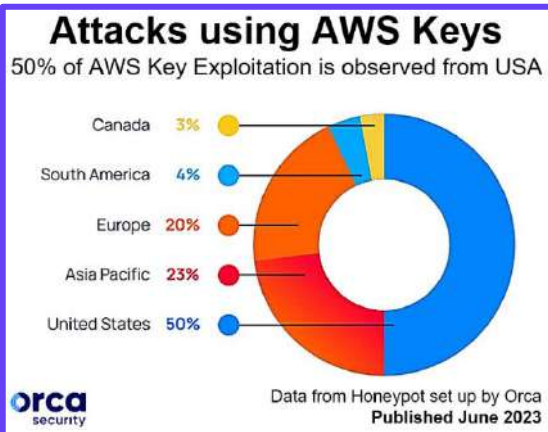
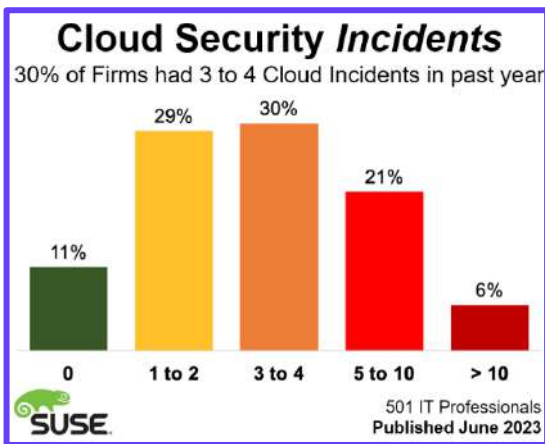
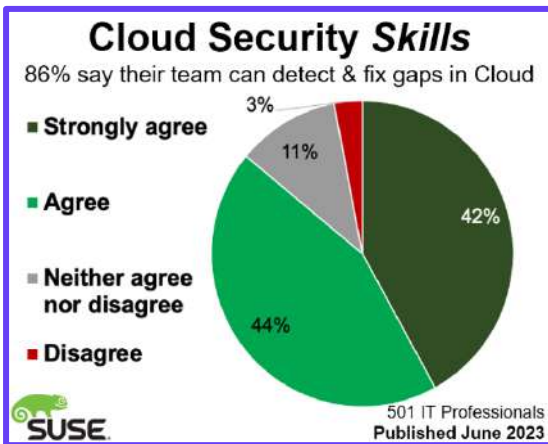
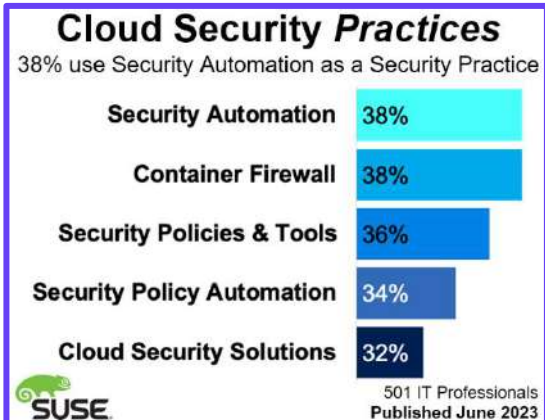
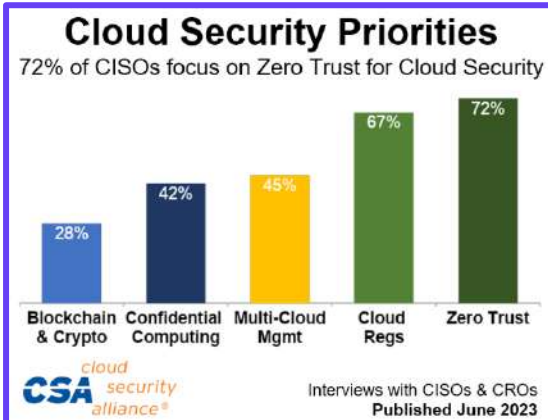
ENISA Research & Innovation Brief

Published Jun '23

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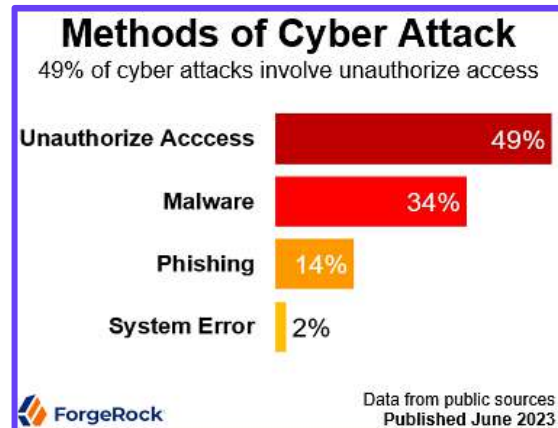
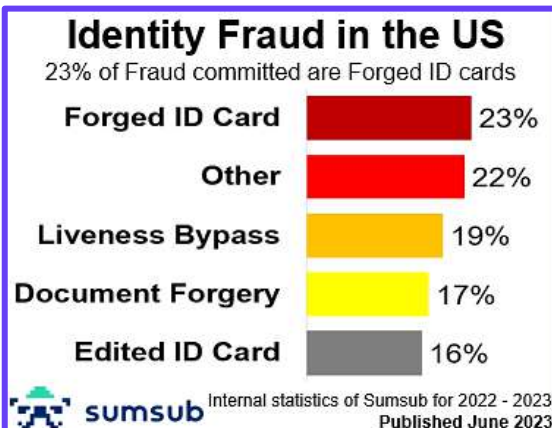
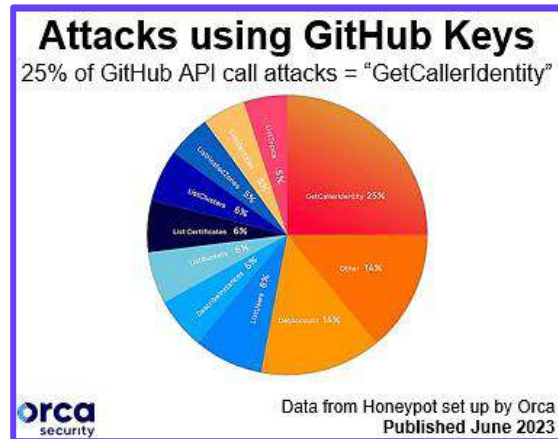
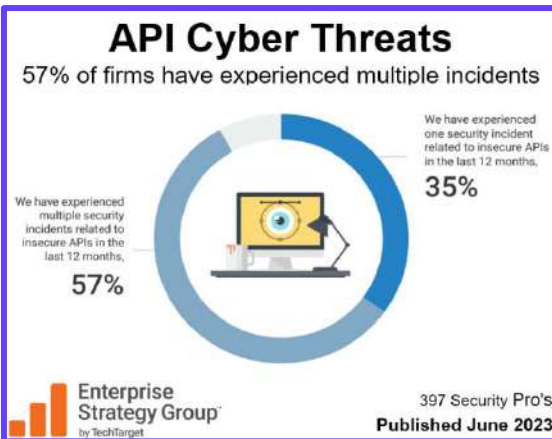
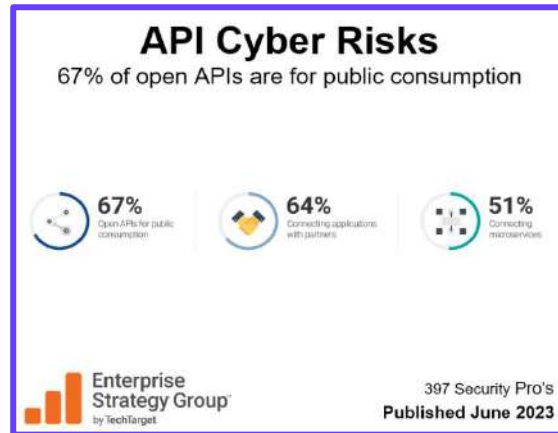
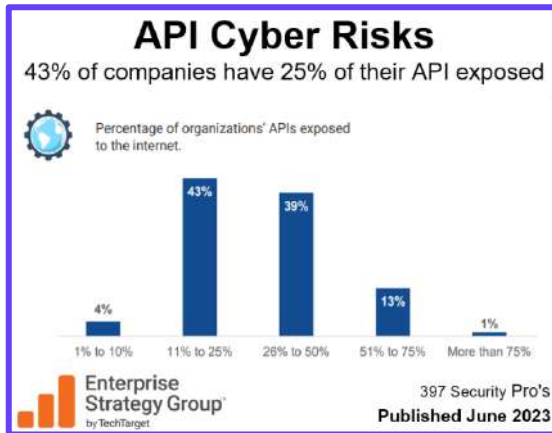
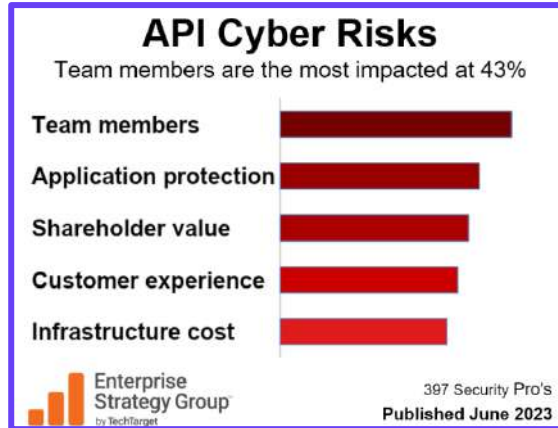
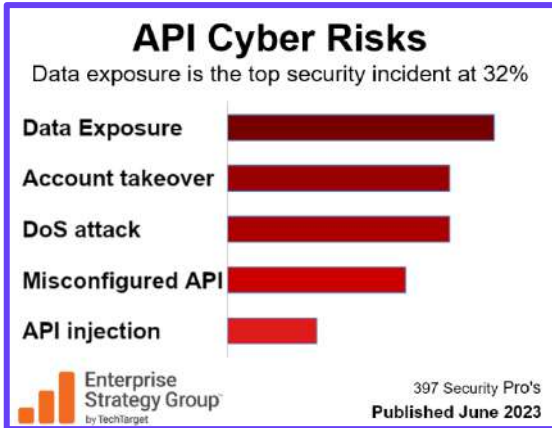
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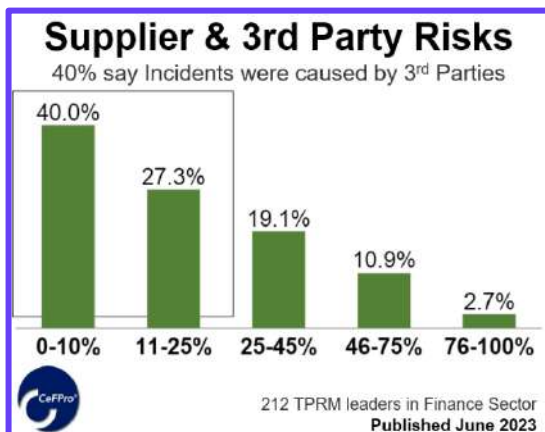
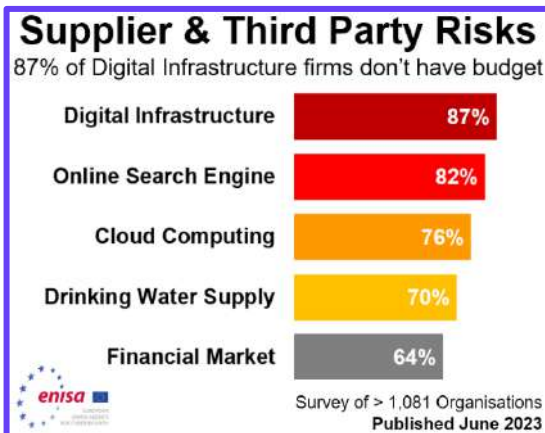
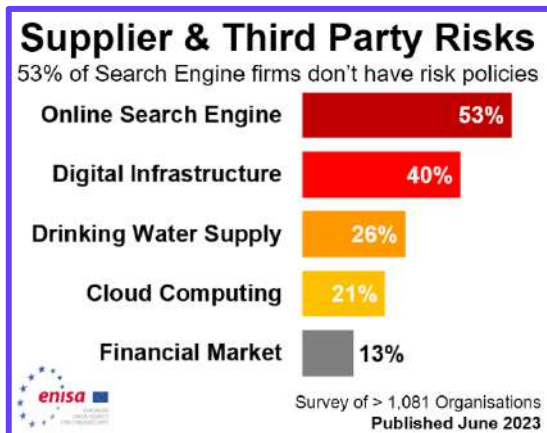
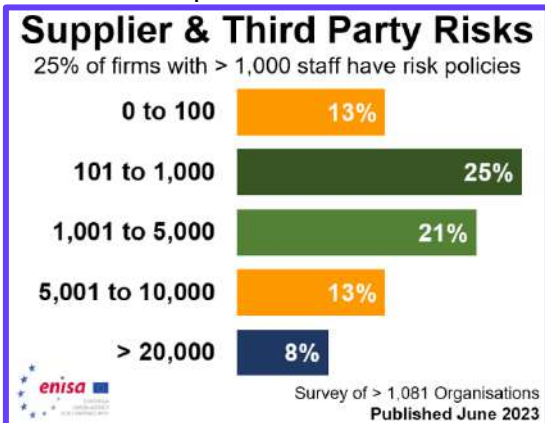
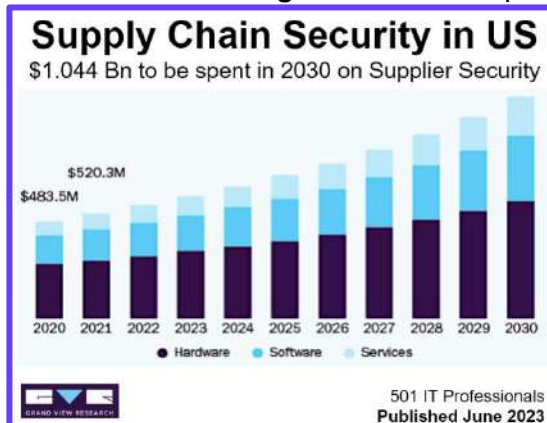
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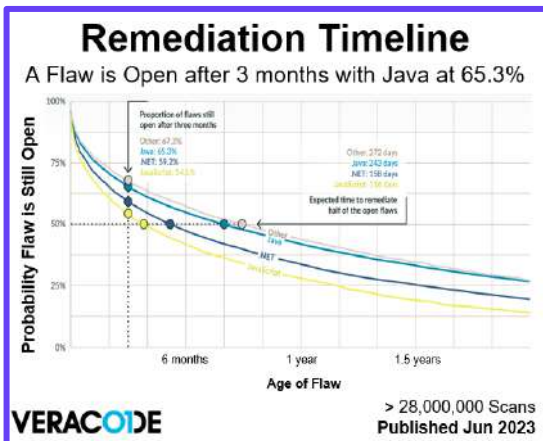
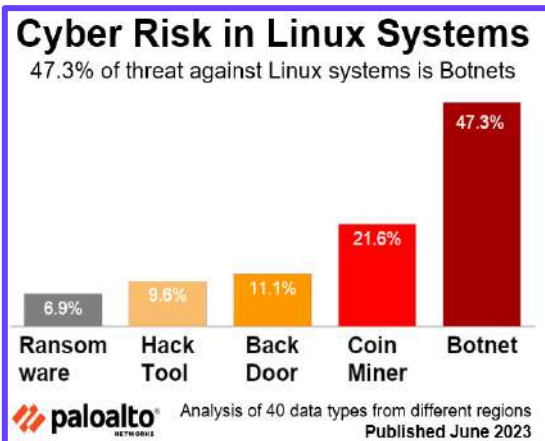
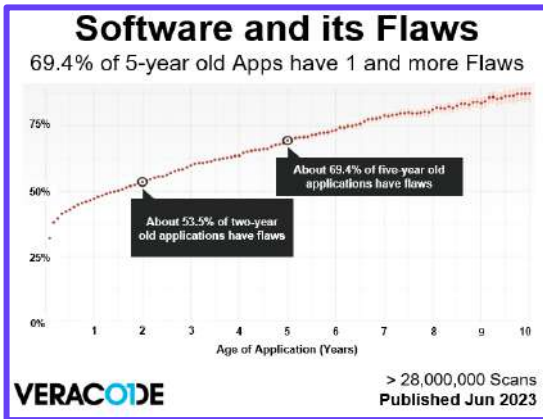
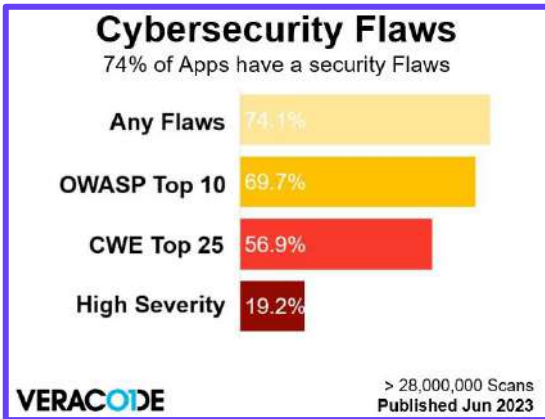
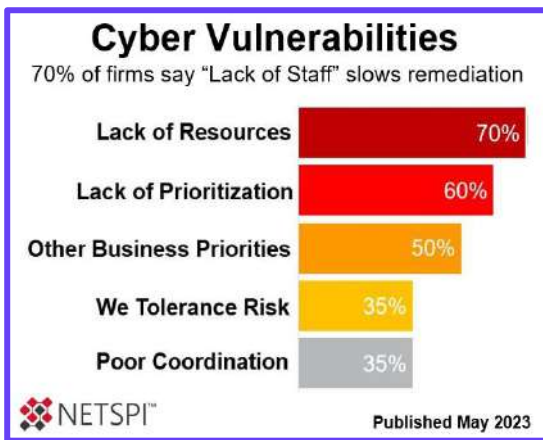
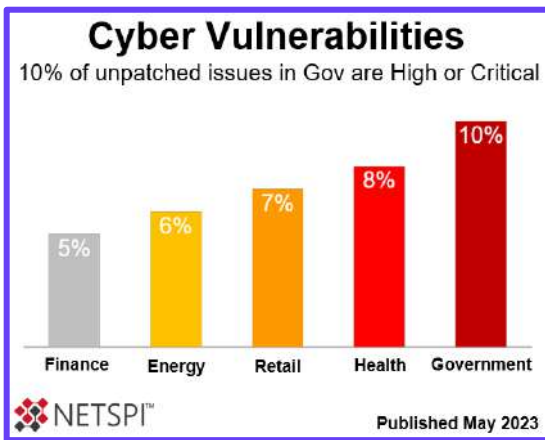
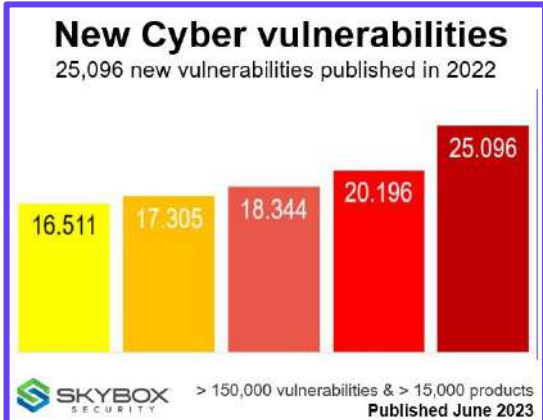
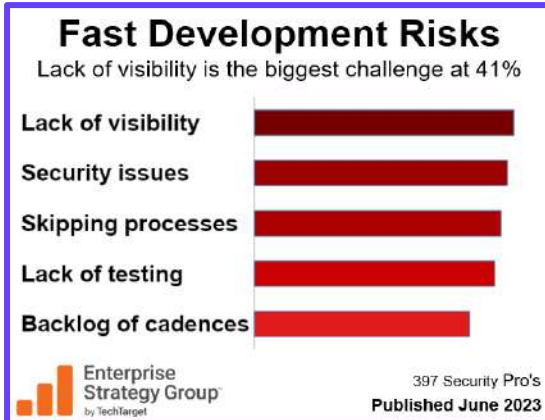
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Cyber Insights: *Cyber Security Flaws*

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Cyber Insights: *Cyber Threat Targets*

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CI0p Gang & MOVEit Breach

"Victims" listed by CI0p up to Monday 26th June

Progress MOVEit[®] Announcements By CI0p
Published 26th June 2023

Nation State Attacks

34% of observed Nation State Attacks on Philippines

Country	Percentage
USA	4%
Cameroon	5.7%
Myanmar	6.2%
India	12%
Philippines	34%

Trellix
Published June 2023

Attacks on Countries

7% of publicised attacks target Ukraine

Country	Percentage
India	3%
South Korea	3%
Germany	4%
USA	7%
Ukraine	7%

Trellix
Published June 2023

Where Attacks are "Made"

Most attacks are routed via IP addresses in USA

orca security
Data from Honeypot set up by Orca
Published June 2023

Cyber Attacks on Industry

238% increase in attacks compared to previous year

paloo[®] Analysis of 40 data types from different regions
Published June 2023

Cyber Attacks by Industry

36% of cyber attacks target the Healthcare sector

Industry	Percentage
Health	36%
Education	21%
Finance	10%
Tech	2%
Gov	2%

ForgeRock
Data from public sources
Published June 2023

Cyber Attack by Vertical

34.4% of Web Attacks are targeted at commerce

Vertical	Attack Count (Billions)
Commerce	34.43%
High Technology	21.66%
Financial Services	15.64%
Video Media	8.38%
Manufacturing	6.58%
Public Sector	3.50%
Gaming	3.07%
Other Digital Media	2.82%
Business Services	1.35%
Social Media	1.19%
Consulting	0.70%
Pharmaceutical	0.66%
Nonprofit/Education	0.14%

Akamai
Analysis of 1,300 Networks in 130+ Countries
Published June 2023

Cyber Attack Campaigns

39% of Phishing attacks targeted Financial Services

Target	Percentage
Media	4%
Other	8%
High Tech	17%
Commerce	30%
Financial Services	39%

Akamai
Analysis of 1,300 Networks in 130+ Countries
Published June 2023

Cyber Insights: *Cyber Skills*

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Job Growth to 2033

242% growth in Cyber Jobs forecast across USA

- 266% Data Scientist
- 242% **Cyber Security Analyst**
- 180% Software Developers
- 99% CIOs and IT Directors
- 21% IT Support Specialists

CompTIA CompTIA Tech Survey
Published May 2023

Frequency of Cyber Training

27% of firms have monthly Cybersecurity training

Monthly	27%
Quarterly	37%
Semi-annually	23%
Annually	13%
Never	1%

OSTERMAN RESEARCH IMMERSIVELABS
570 Senior Security Pro's
Published June 2023

Cyber Security Training

52% of firms conduct annual training for employees

Annual Live Training	52.1%
Onboarding Live Training	47.3%
Threat Simulation System	44.0%
Reminder Signs Hanging	41.9%
Pre-recorded Training	41.0%

CYBEREDGE GROUP Survey of 1,200 Security Pros
Source: 2023 Cyberthreat Defense Report, CyberEdge Group, LLC

Cyber Security Training

39% of CISOs say Training prevents Data Loss

Staff Training	39%
Cloud Security	36%
Isolation Technology	36%
Email Security	35%
Endpoint Security	35%

proofpoint. Survey of 1,600 CISOs in 16 countries
Published May 2023

Cyber Skill Gaps

Cyber Pro's struggle to Manage Stressful situations

- #1 = **Managing** stressful situations
- #2 = Make a **business case** to C-suite
- #3 = **Understanding** legal requirements
- #4 = **Communication**
- #5 = **Understanding** compliance

Delinea 2,000 IT Security Decision Makers
Published May 2023

Teamwork in Cyber

51% of CISOs: team alignment needs improvement

Backup administrators	70%
IT operations	62%
Security professionals	59%
CISO or IT execs	51%

veeam Survey of 1,200 IT Leaders
Published May 2023

Best Security Practices

Developing Cyber & Physical Security

Published Jun '23

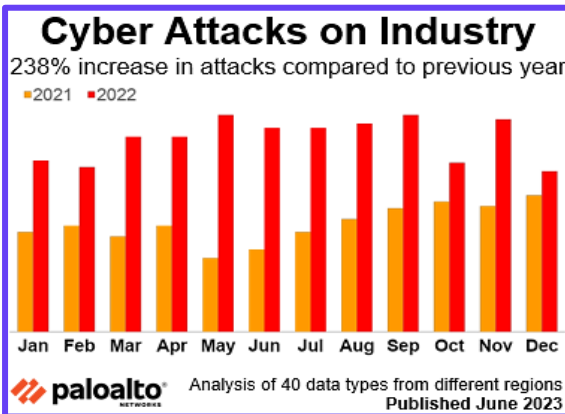
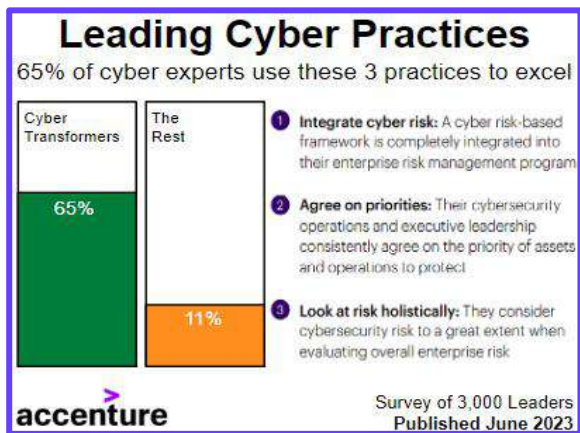
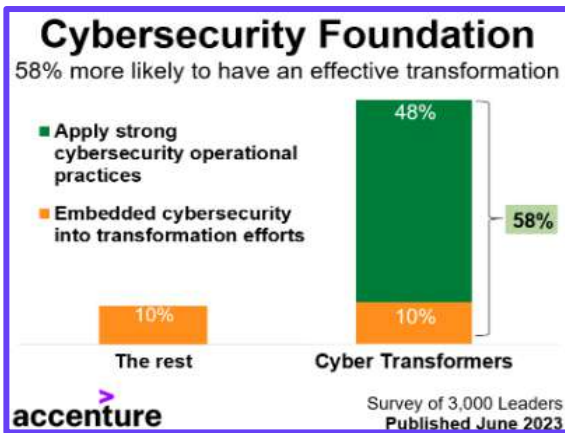
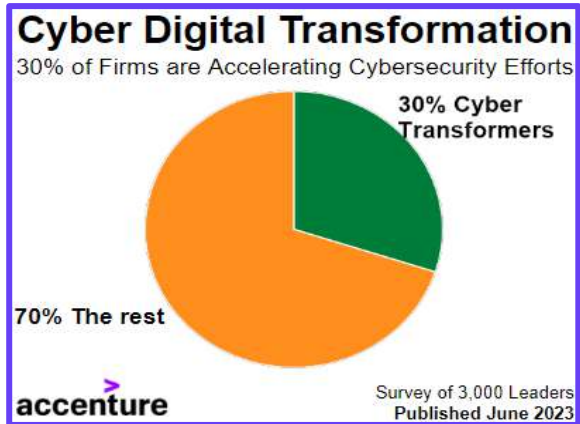
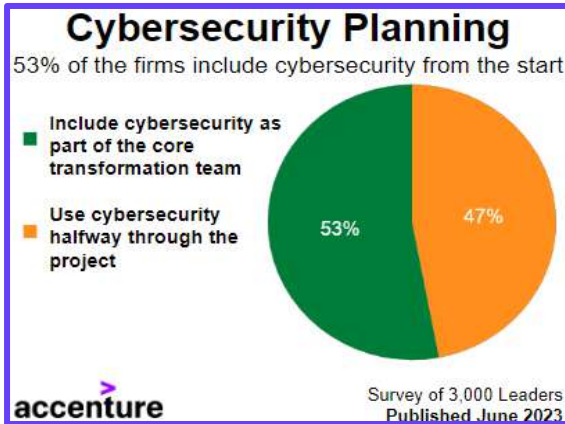
SANS Cyber Security in Industry

Industrial Control Systems

Published May 2023

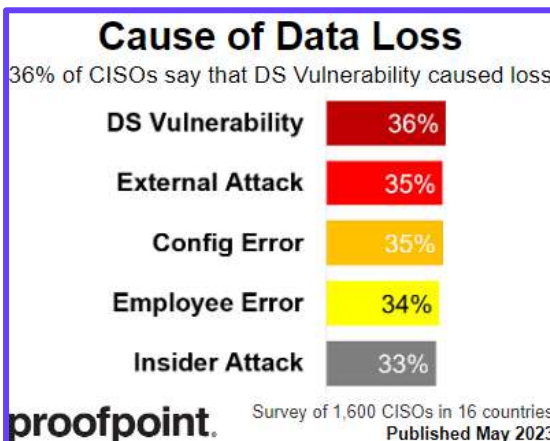
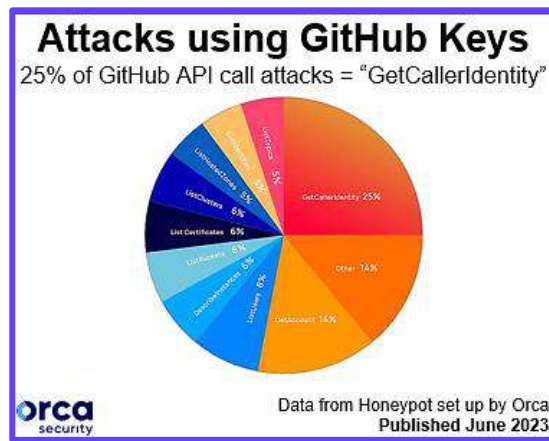
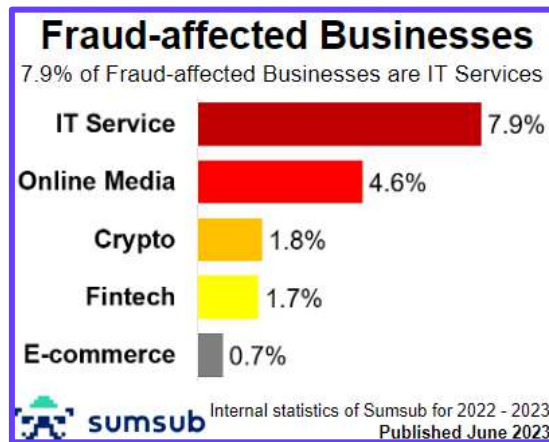
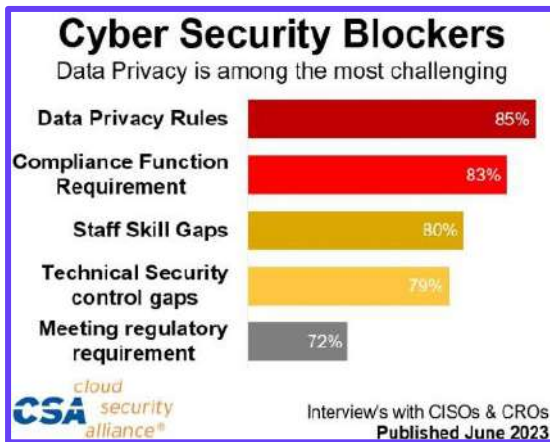
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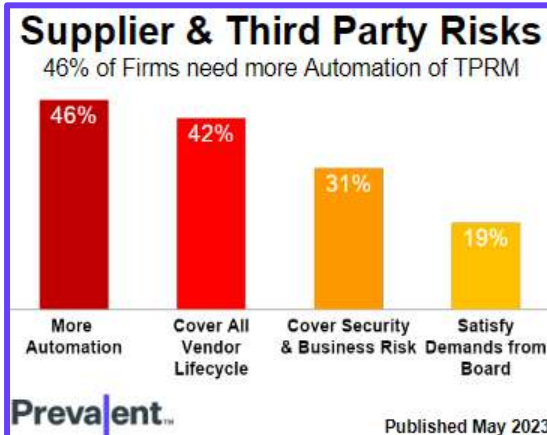
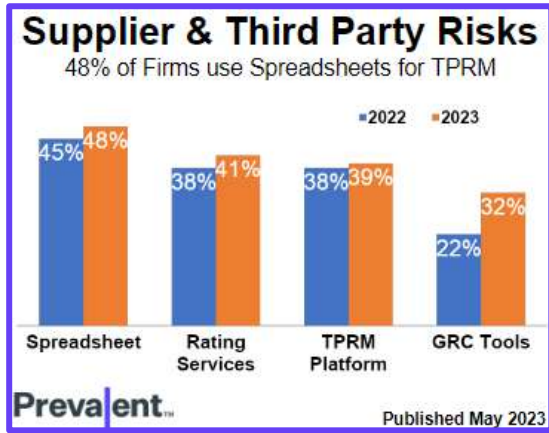
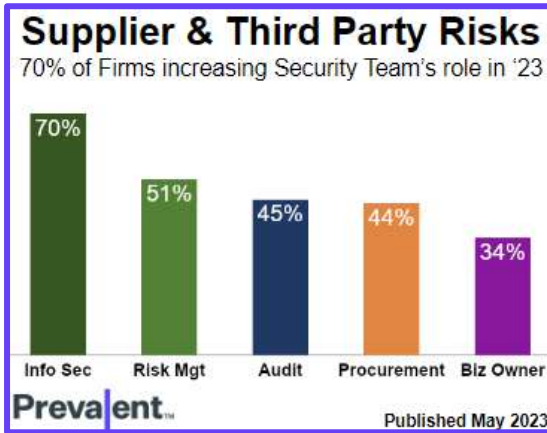
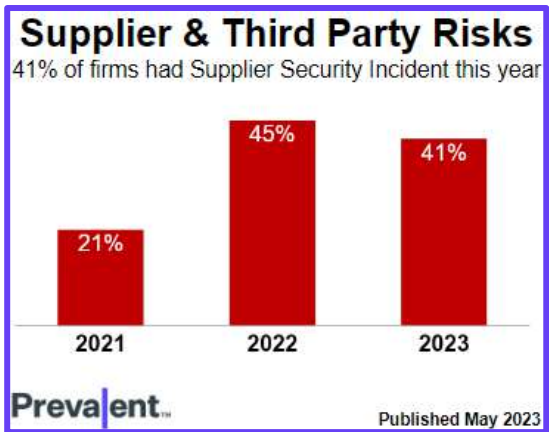
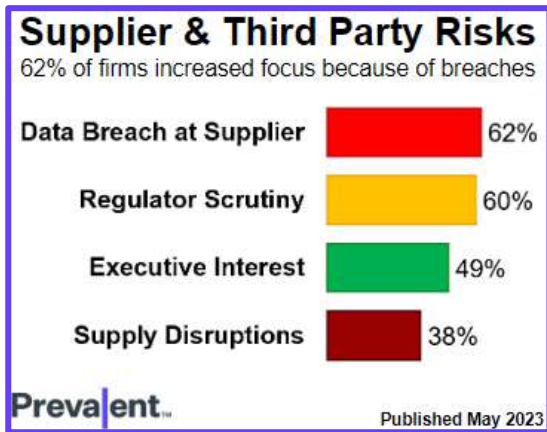
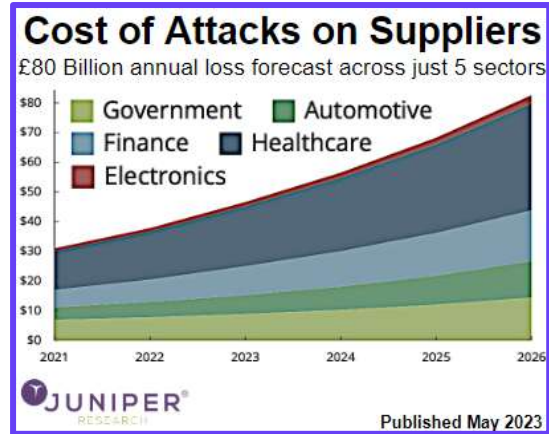
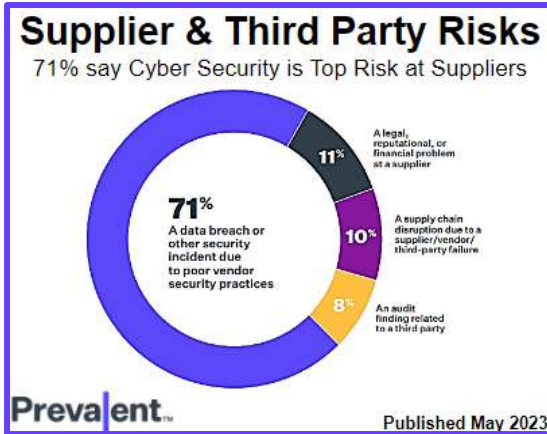
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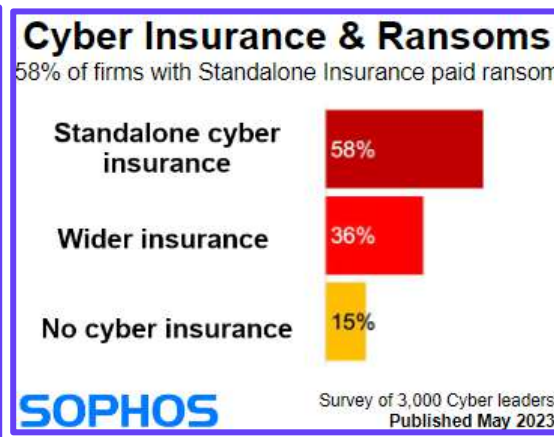
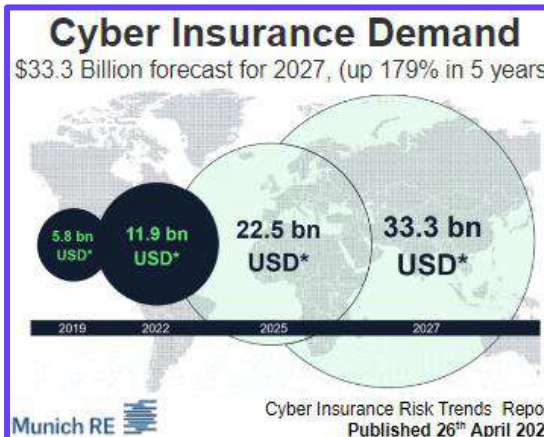
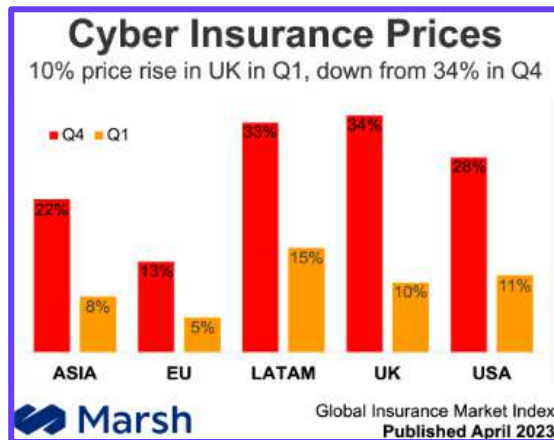
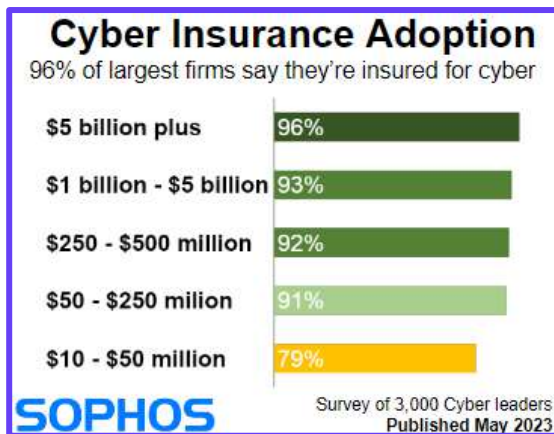
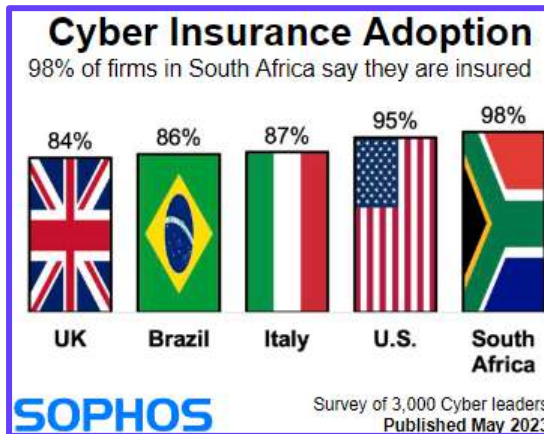
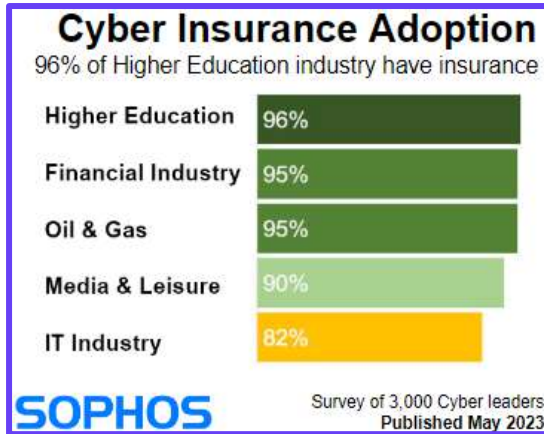
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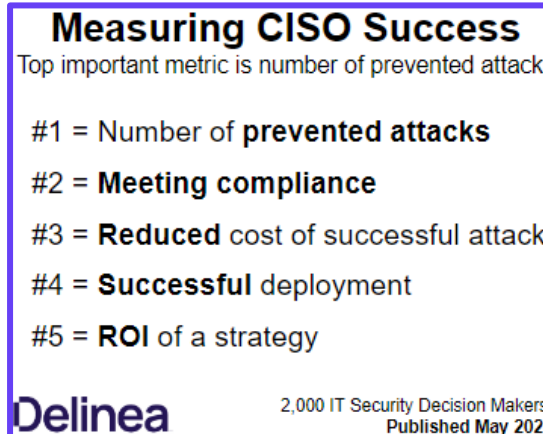
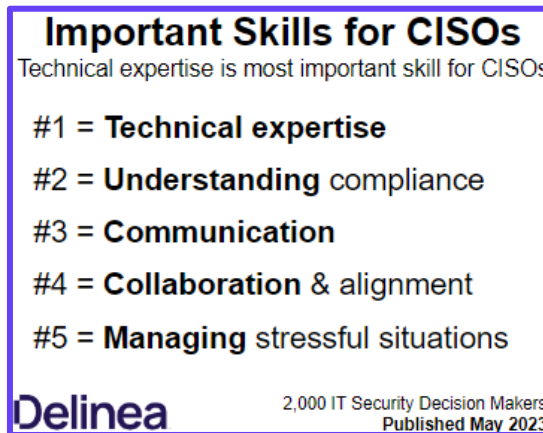
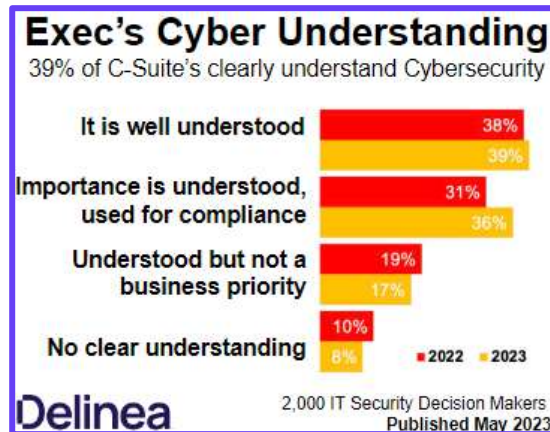
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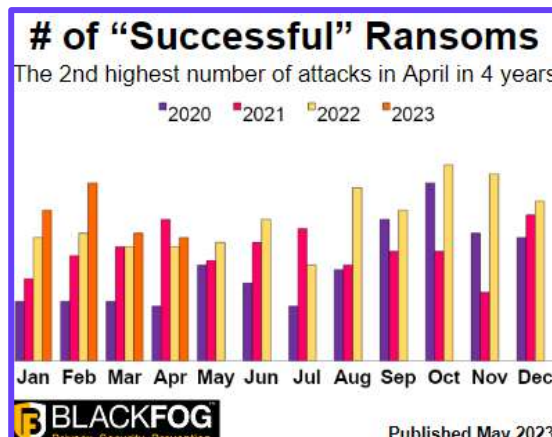
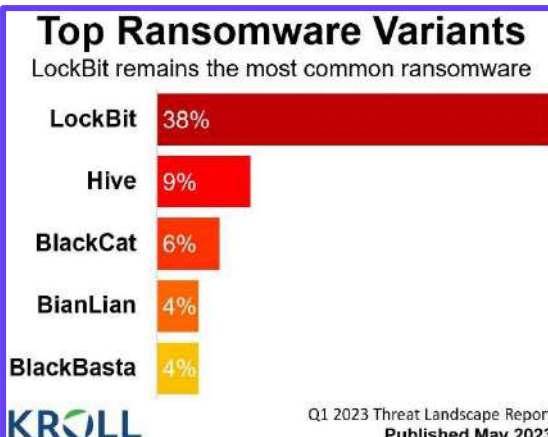
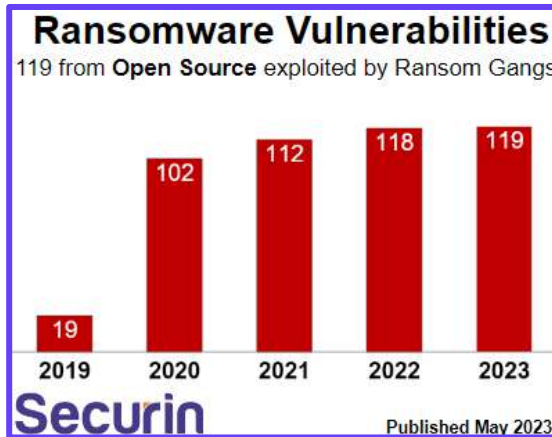
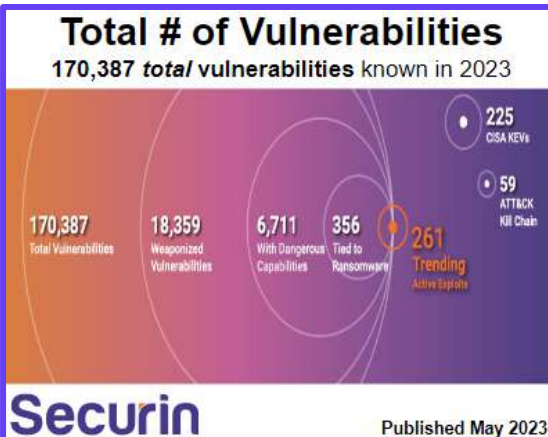
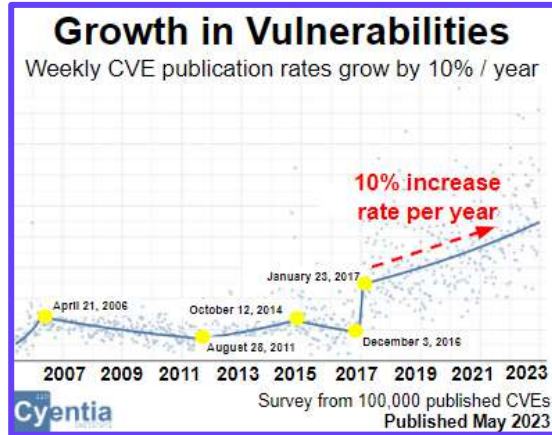
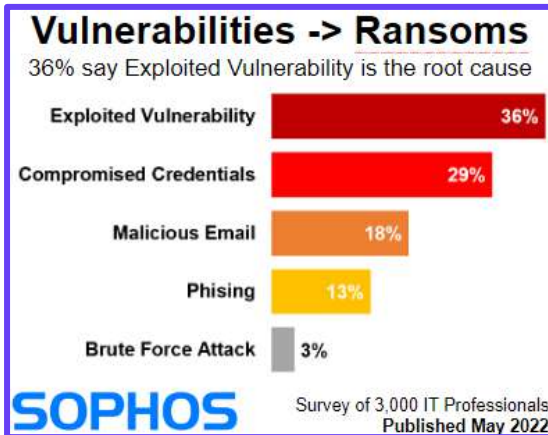
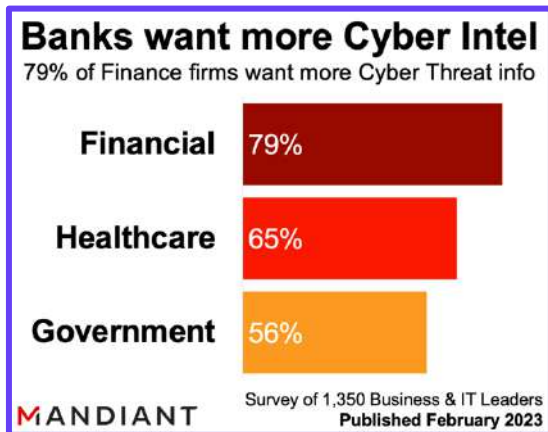
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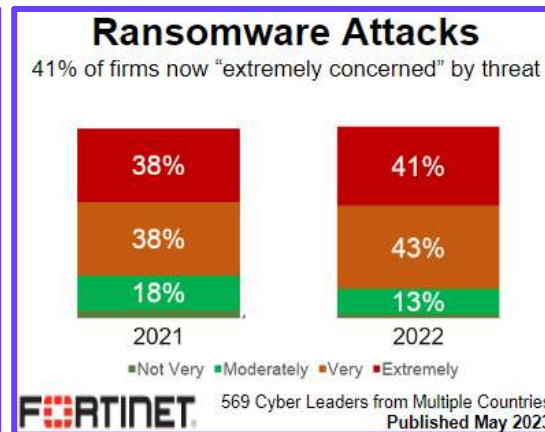
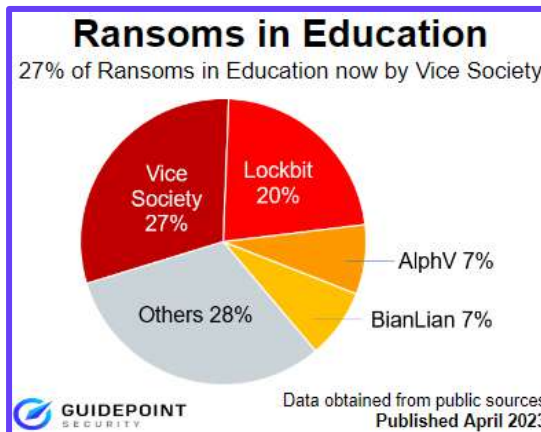
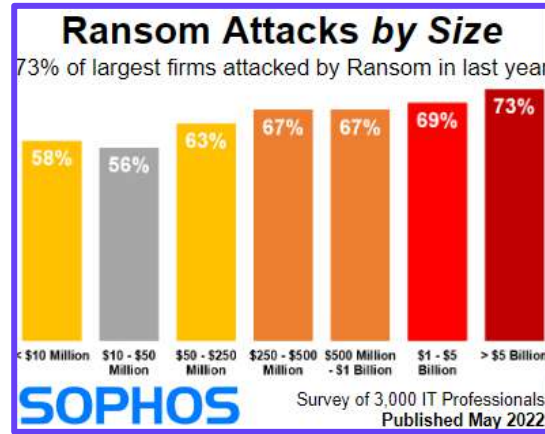
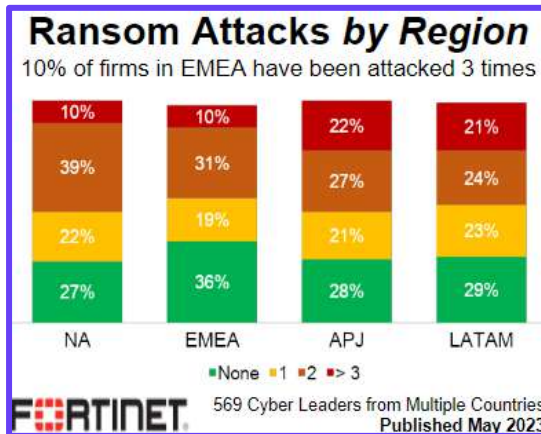
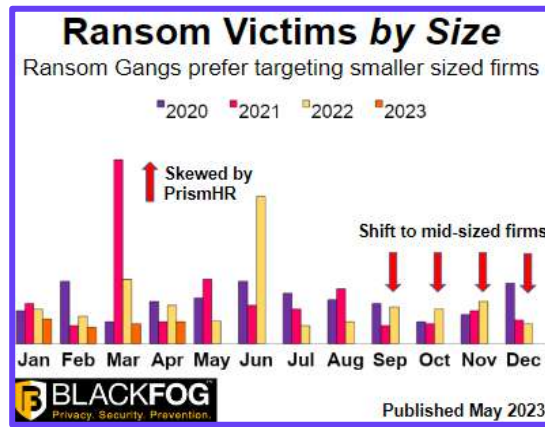
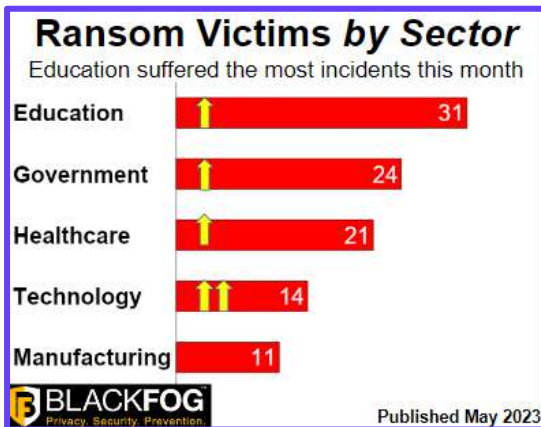
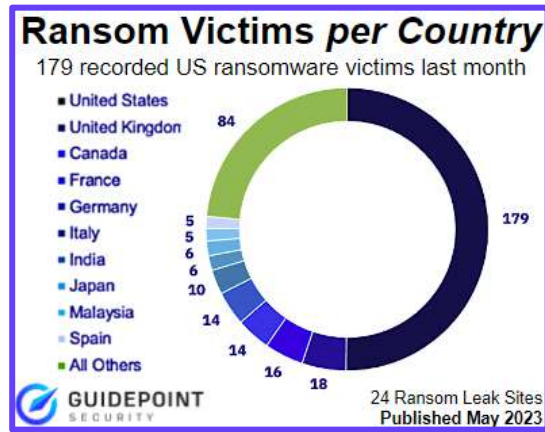
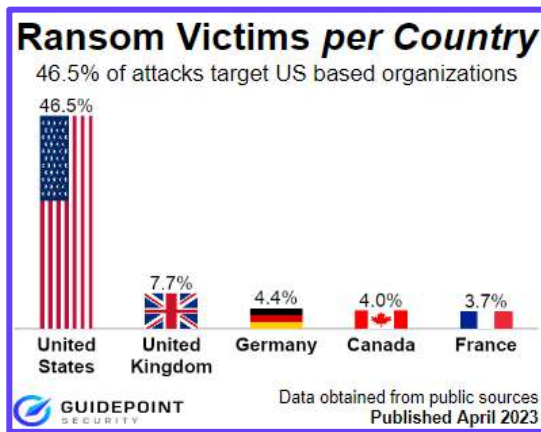
Cyber Insights: *Ransomware Vulnerabilities*

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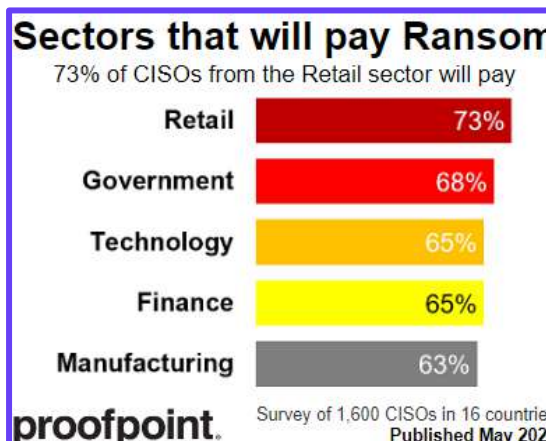
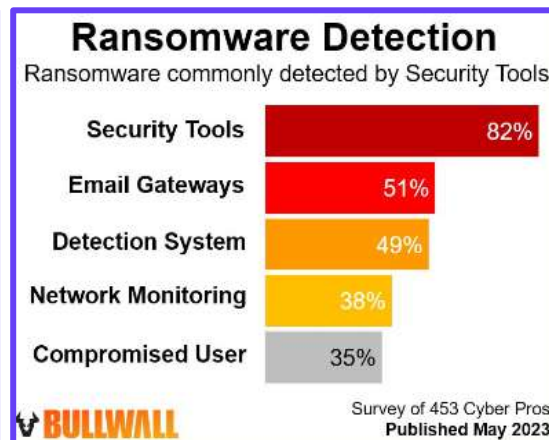
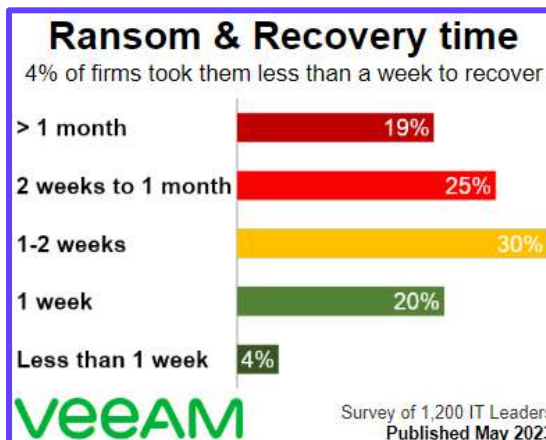
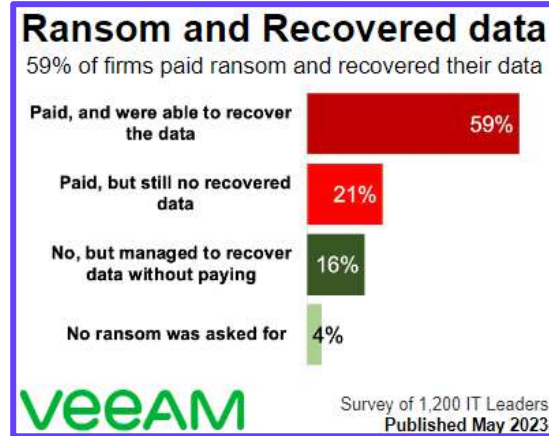
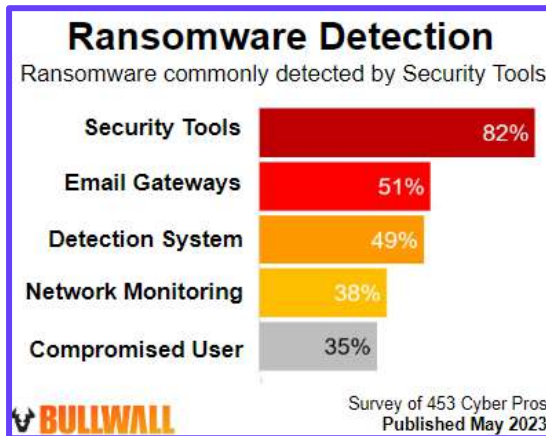
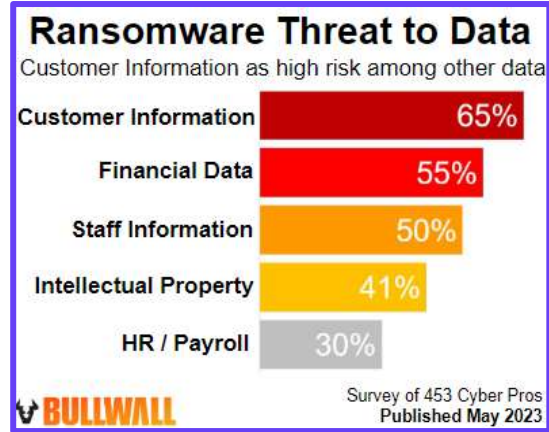
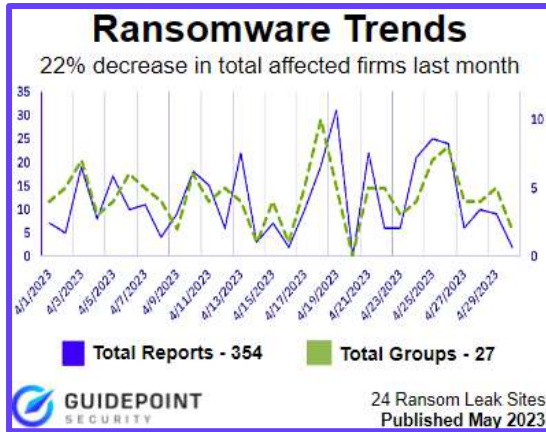
Cyber Insights: Ransomware Victims

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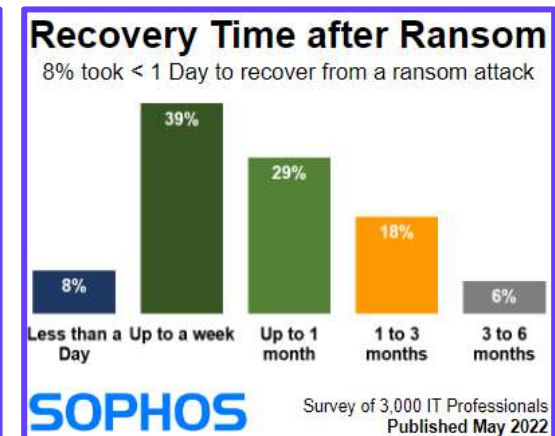
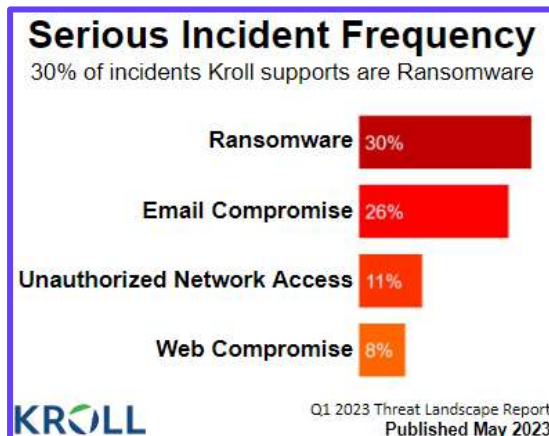
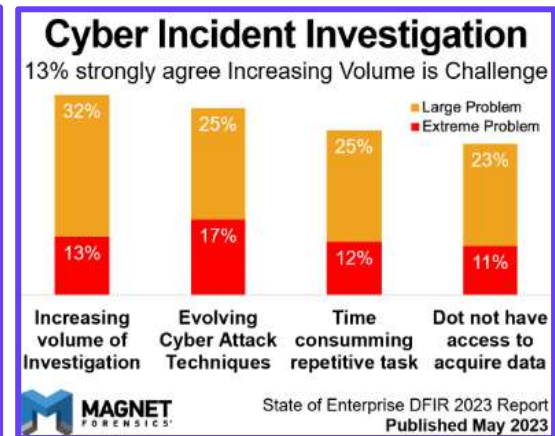
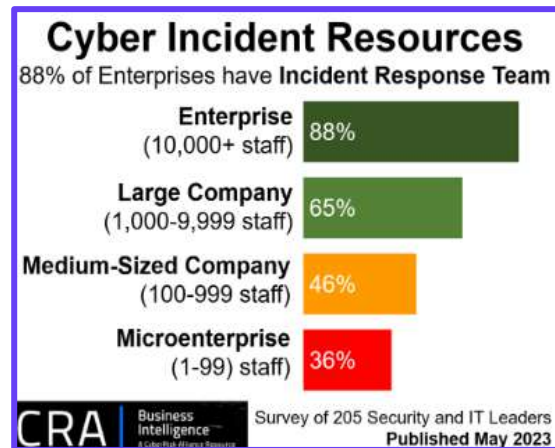
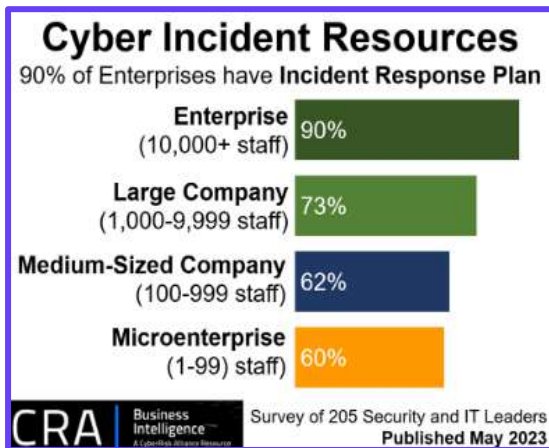
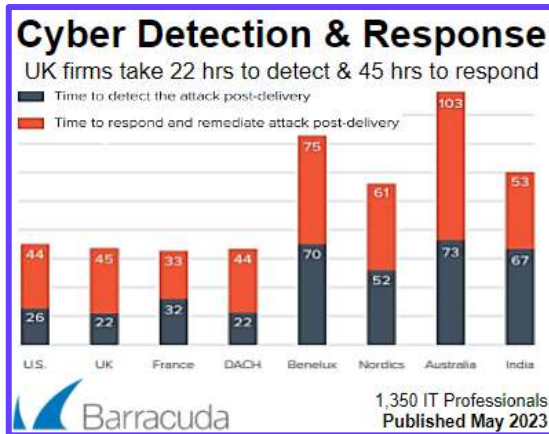
Cyber Insights: *Ransomware Insights*

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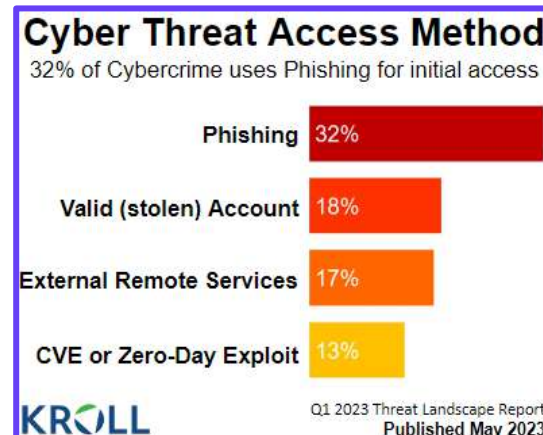
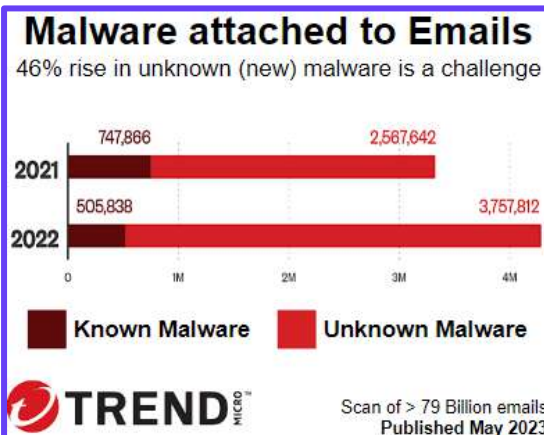
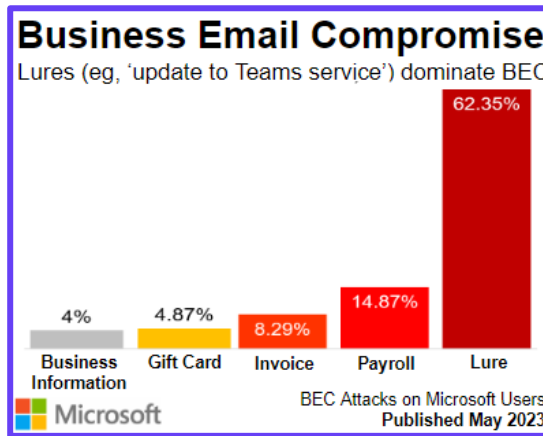
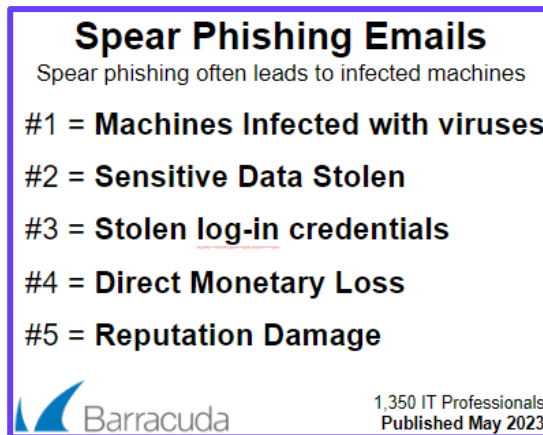
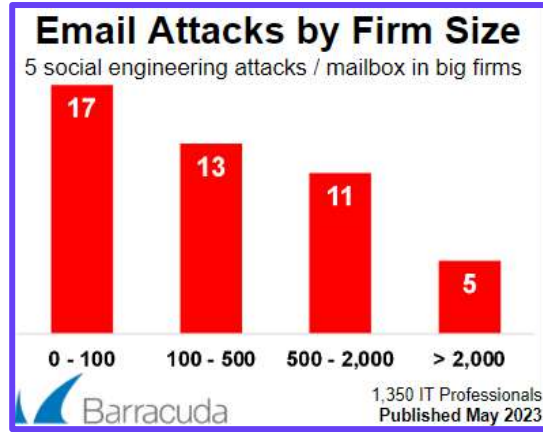
Cyber Insights: *Incident Response*

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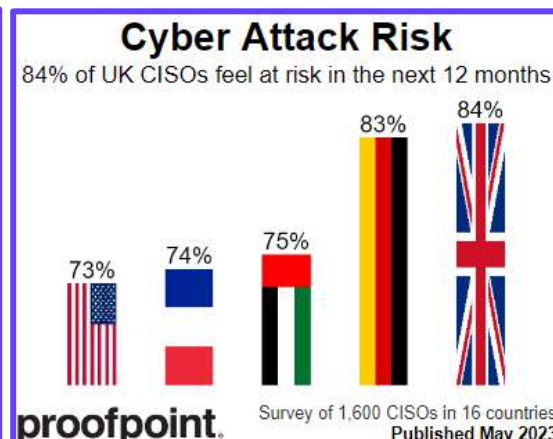
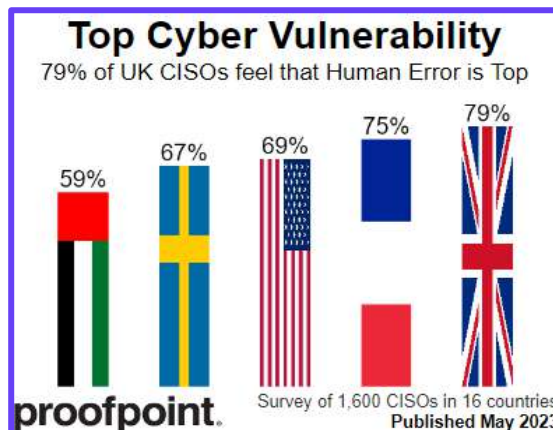
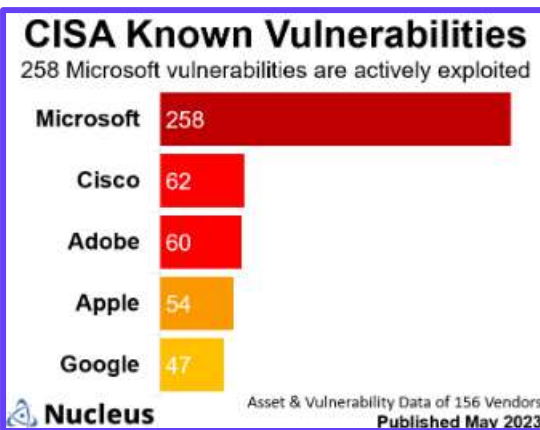
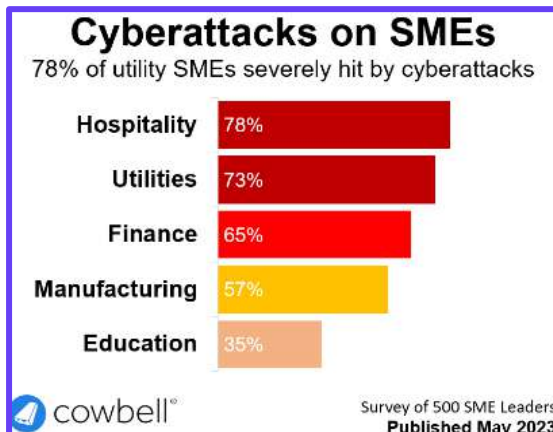
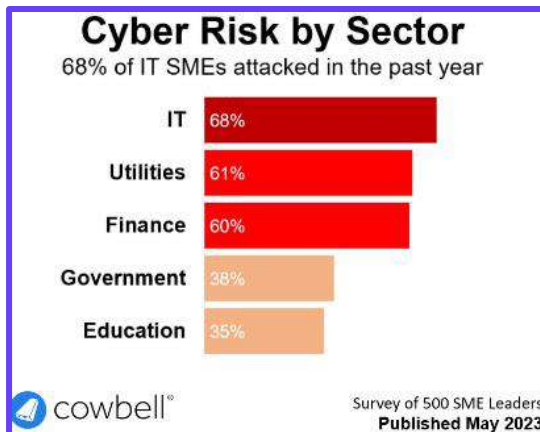
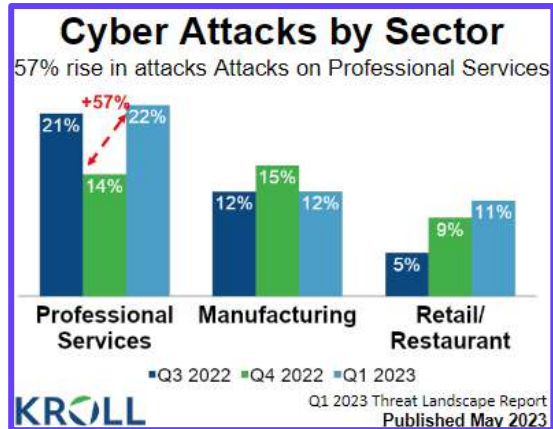
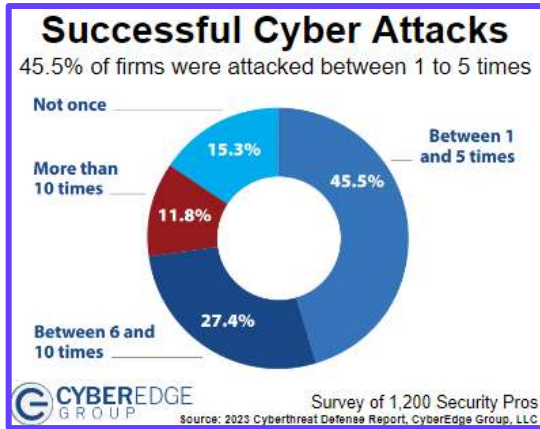
Cyber Insights: *Email Threats*

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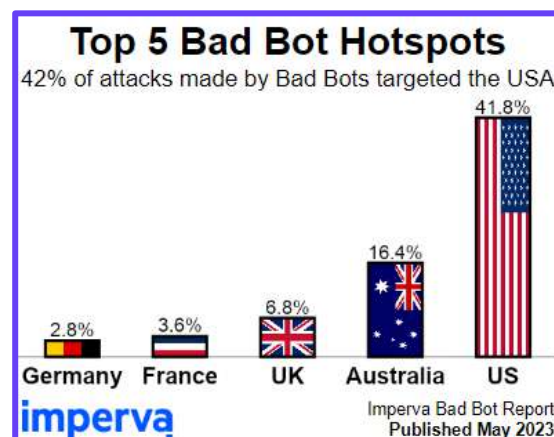
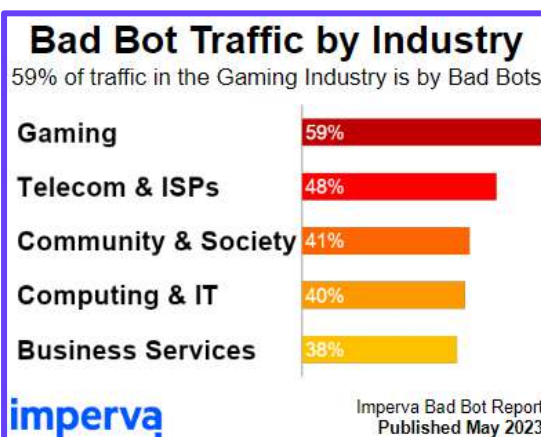
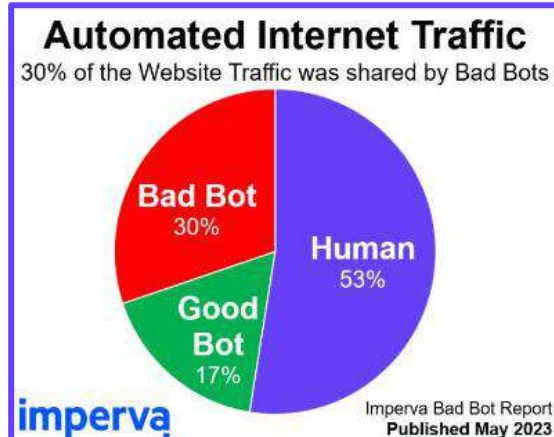
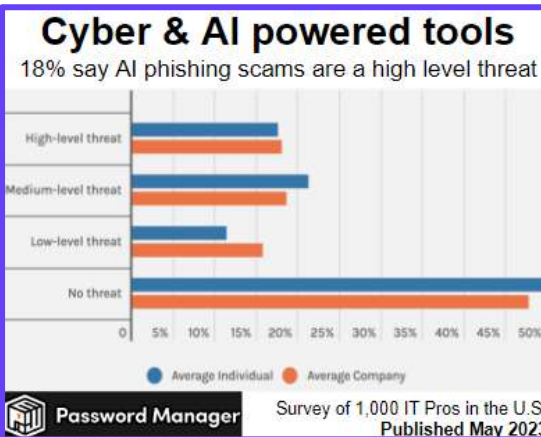
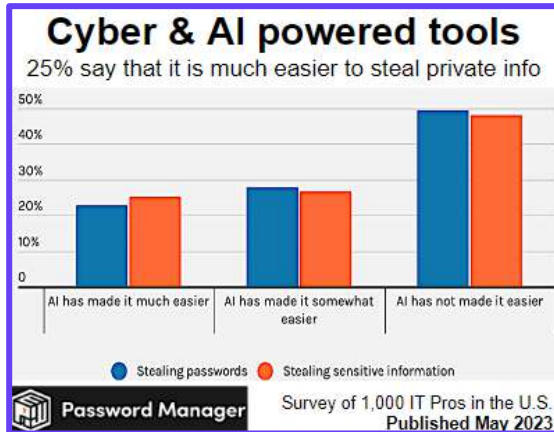
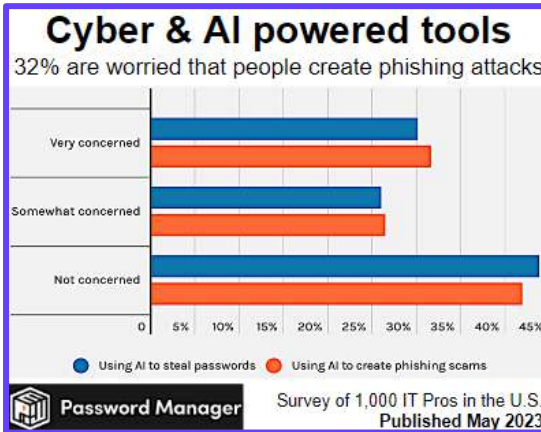
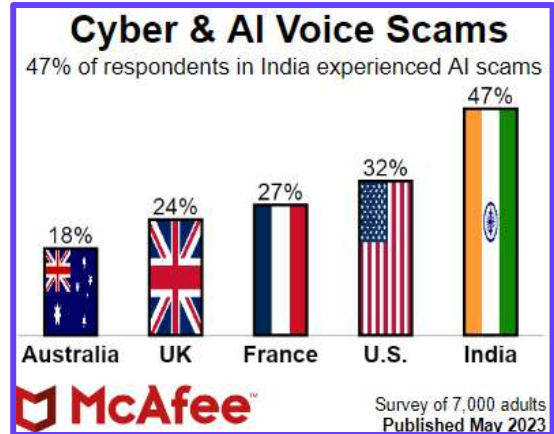
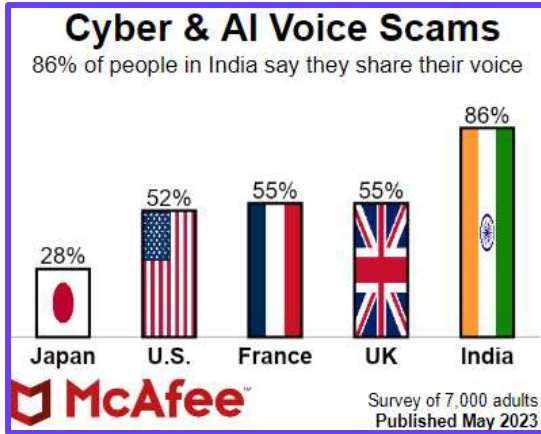
Cyber Insights: *Cyber Attacks*

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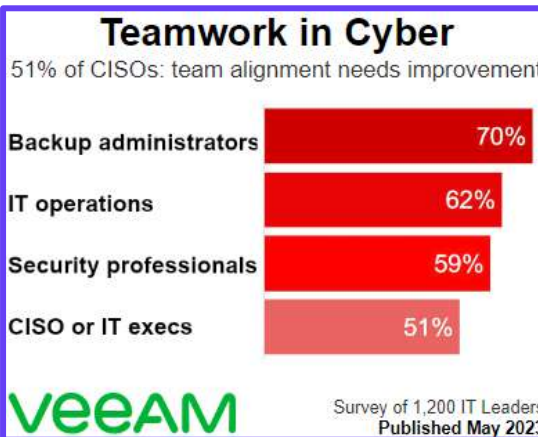
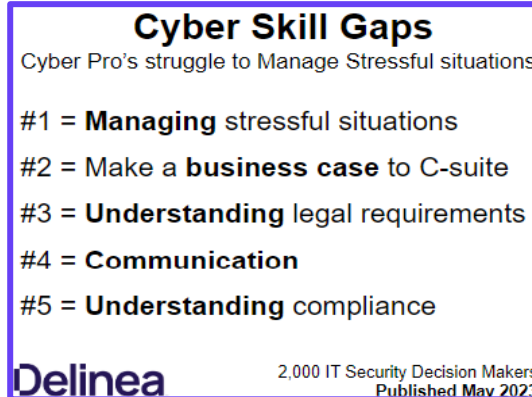
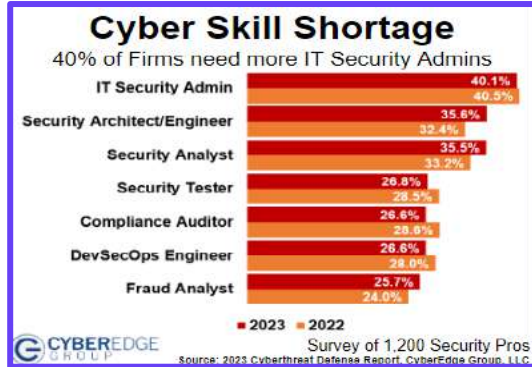
Cyber Insights: *AI and Bots*

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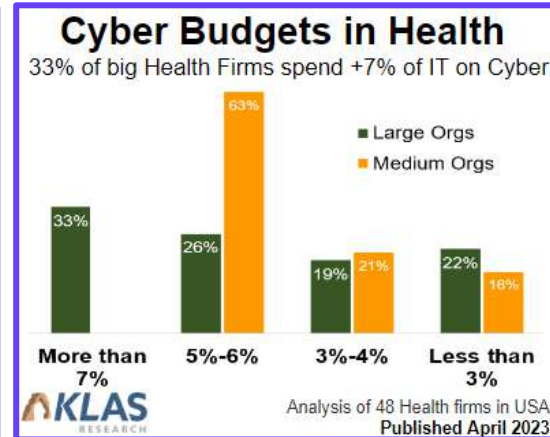
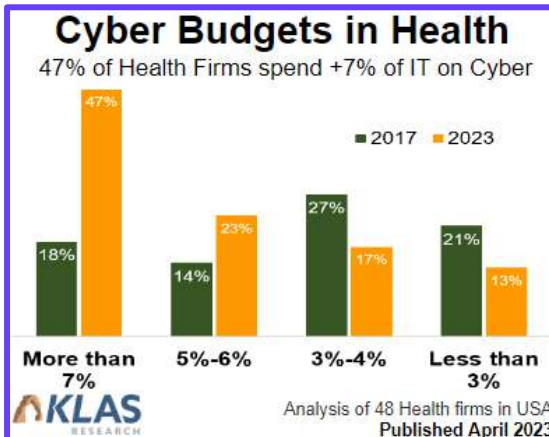
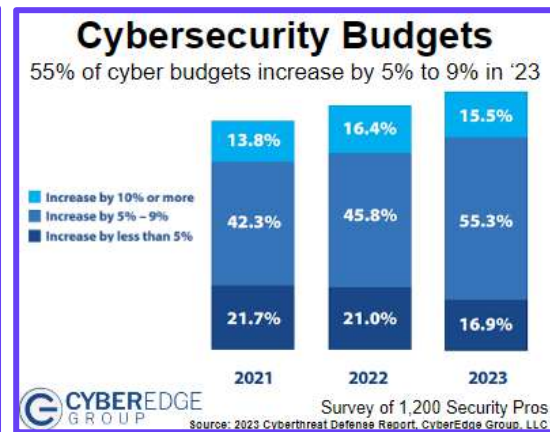
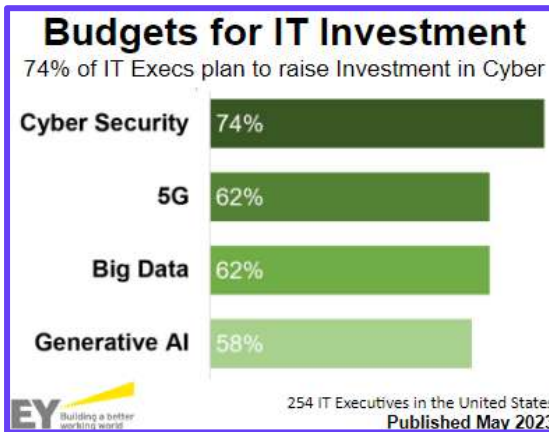
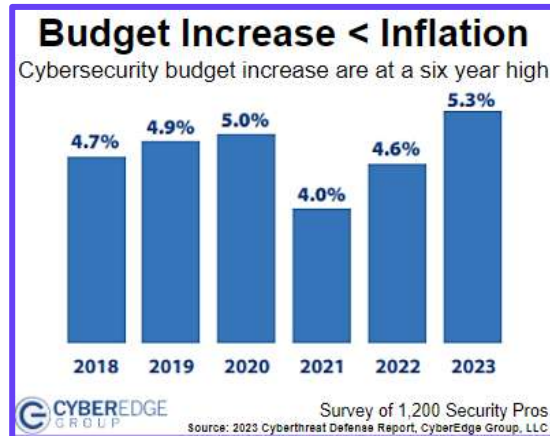
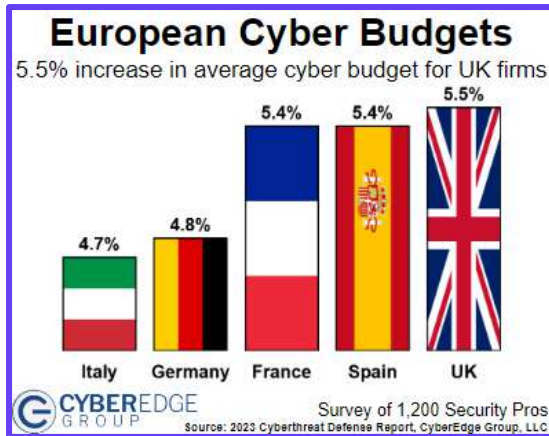
Cyber Insights: *Cyber Talent & Staff*

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Cyber Insights: *Budget & Salaries*

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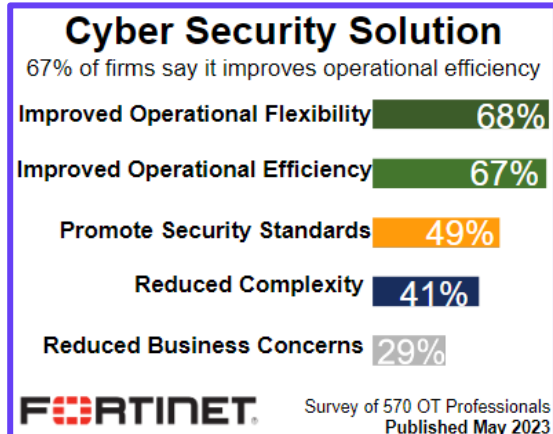
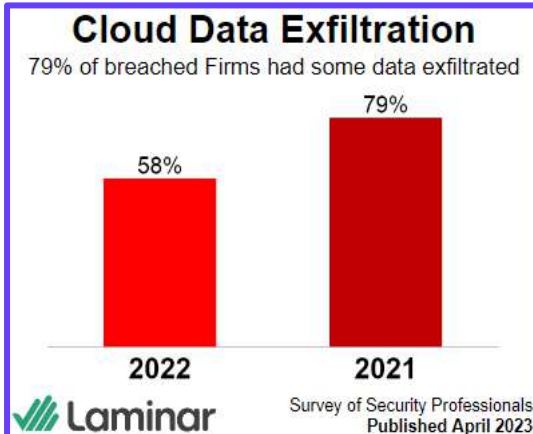
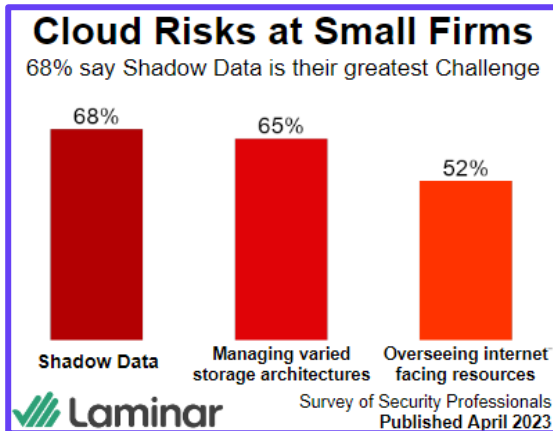
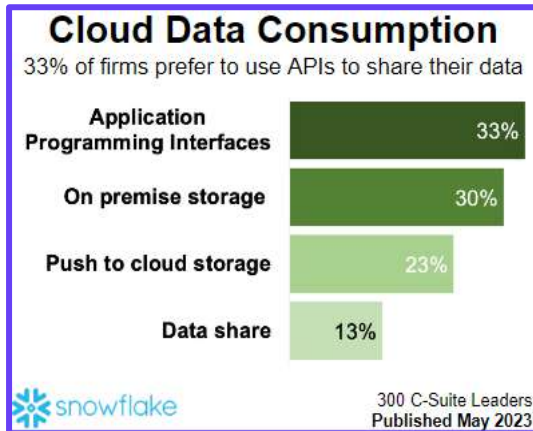
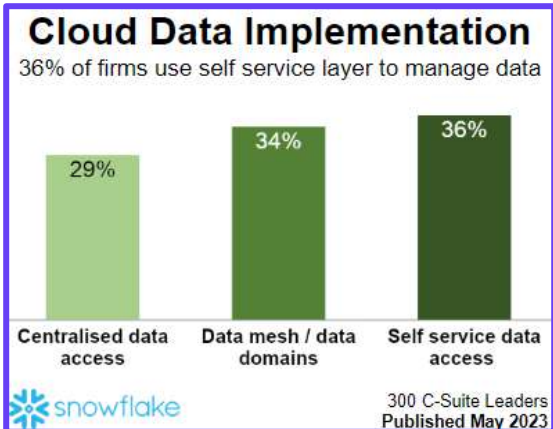
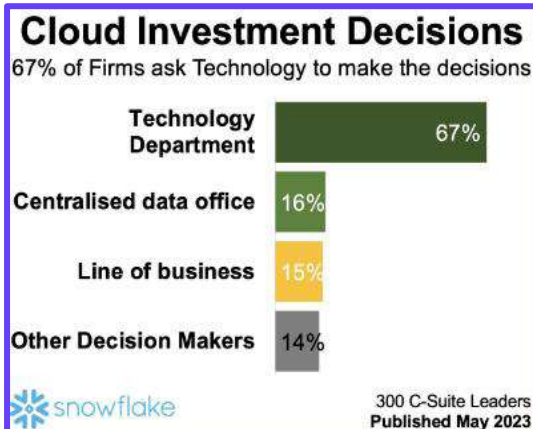


- ### Most Popular Cyber Tools
- Top 5 Controls at firms that don't claim on insurance
- #1 = **Hardening** Techniques
 - #2 = **Privileged** Access
 - #3 = **Endpoint** Detection
 - #4 = **Logging** and **Monitoring**
 - #5 = **Patched** Systems
- Analysis of Claims on Cyber Insurance
Published April 2023

- ### Best Cyber Investments
- Top 5 tools used at firms that buy cyber insurance
- #1 = **Hardening** Techniques
 - #2 = **Cybersecurity** Training
 - #3 = **Endpoint** Detection
 - #4 = **Logging** and **Monitoring**
 - #5 = **Email** Filtering
- Analysis of Claims on Cyber Insurance
Published April 2023

Cyber Insights: *Cloud Risks*

Click each image to see each report in full. All were published in month to March 2023




Cyber Insights: *Cyber Resilience*

Click each image to see each report in full. All were published in month to March 2023

Operational Resilience

Top Priority = Identify Important Business Services

- #1 = Identify Important Bus Services
- #2 = Establish Impact Tolerances
- #3 = Prioritise Vulnerabilities
- #4 = Rehearse Plausible Scenarios
- #5 = Perform IBS Self Assessment




Survey of 334 Op Res leaders in 62 countries
Published May 2023

Operational Resilience

60% of Firms coordinate Resilience & Cyber Risk

Internal committee	59.5%
Report to same person	23.2%
Dual/Cross reporting	21.1%
None	8.4%
Other	5.8%




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Survey of 334 Op Res leaders in 62 countries
Published May 2023

Operational Resilience

75% of Australian firms say "regulator does enough"

USA	26.6%
EU	60.0%
UK	70.2%
Australia	74.9%



Survey of 334 Op Res leaders in 62 countries
Published May 2023

Operational Resilience

32% of Op Res staff adhere to UK's FCA Approach

- #1 = UK's FCA Approach (32%)
- #2 = EU's DORA Act (22%)
- #3 = UK's PRA Approach (22%)
- #4 = Basel Committee BCBS (22%)
- #5 = USA OCC Sound Practices (14%)



334 Op Res leaders in 62 countries
Published May 2023

Operational Resilience

23% of Firms: Head of Resilience owns day-to-day

Continuity Manager	21%
Head of Resilience	12%
Shared Accountability	11%
Op Res Manager	11%
Operations Director	8%




334 Op Res leaders in 62 countries
Published May 2023

Cyber Security Maturity

Intrusion-free firms had 25% boost in cyber maturity

6 to 9	10%
0	25%
1 to 2	27%
3 to 5	37%



Survey of 570 OT Professionals
Published May 2023

Operational Resilience

Top Challenge now is "Embedding OR in our firm"

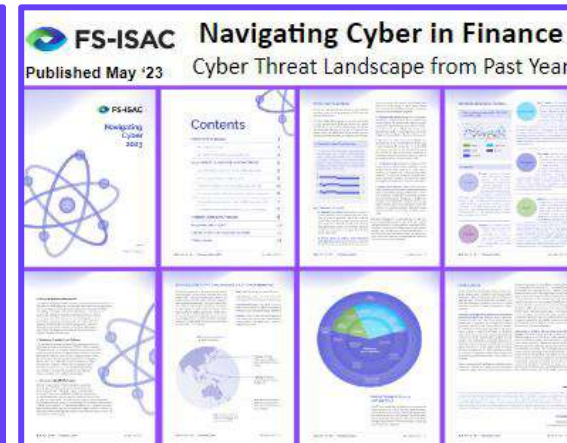
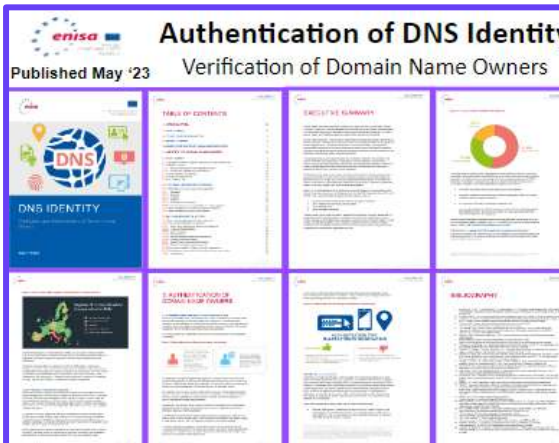
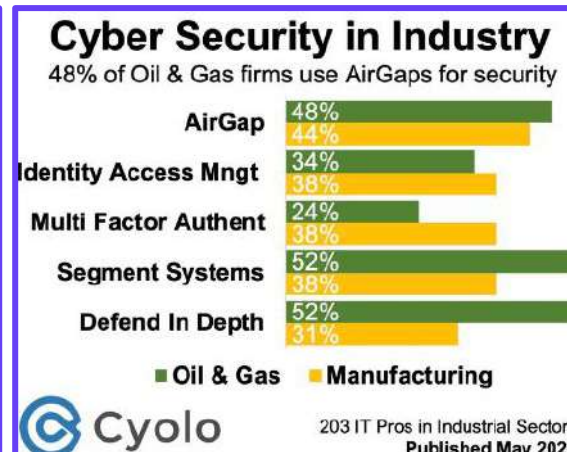
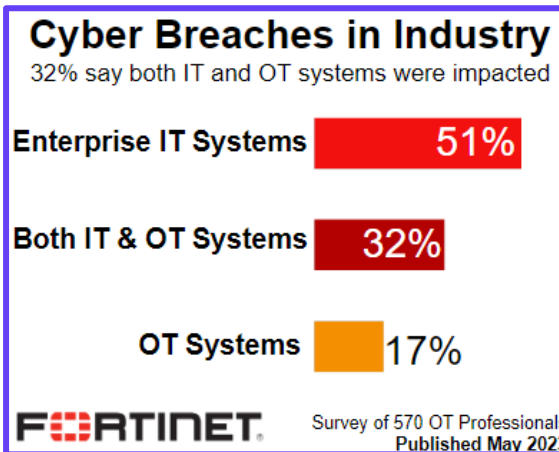
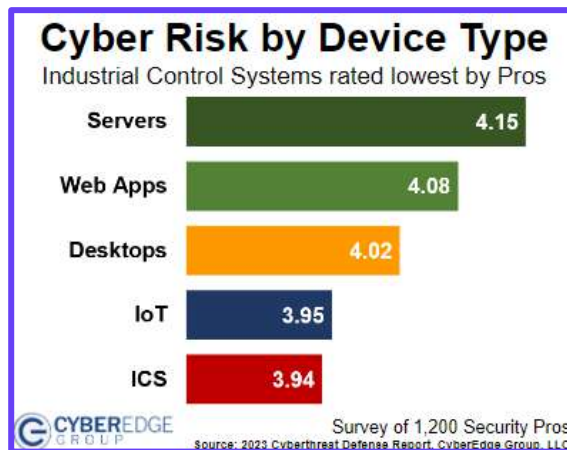
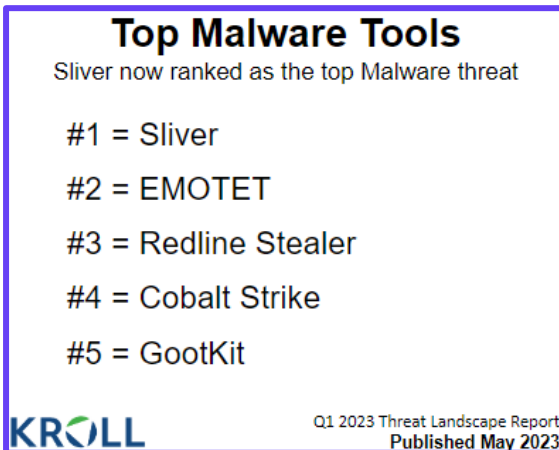
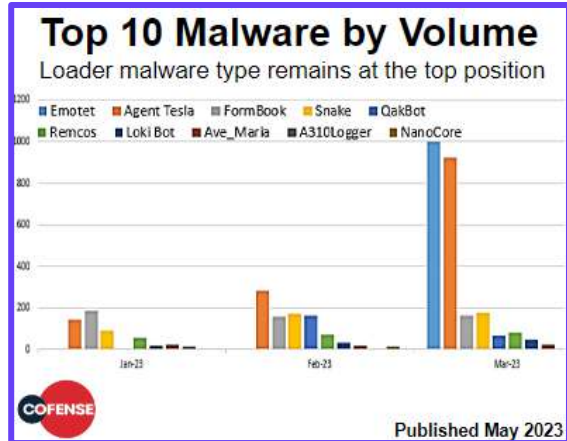
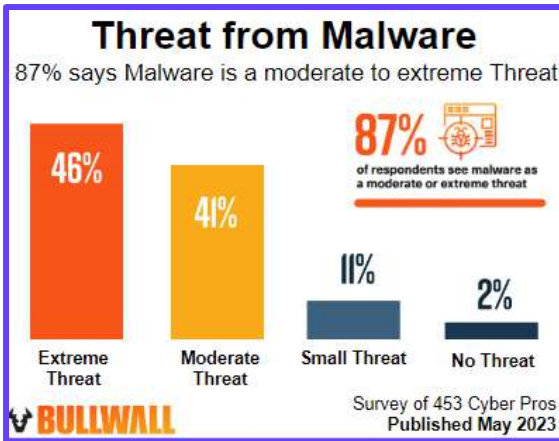
- #1 = To Embed Operational Resilience
- #2 = Not enough Staff to Implement
- #3 = Monitor Supply Chain Risks
- #4 = Address Legacy Infrastructure
- #5 = Governance of Resilience



334 Op Res leaders in 62 countries
Published May 2023

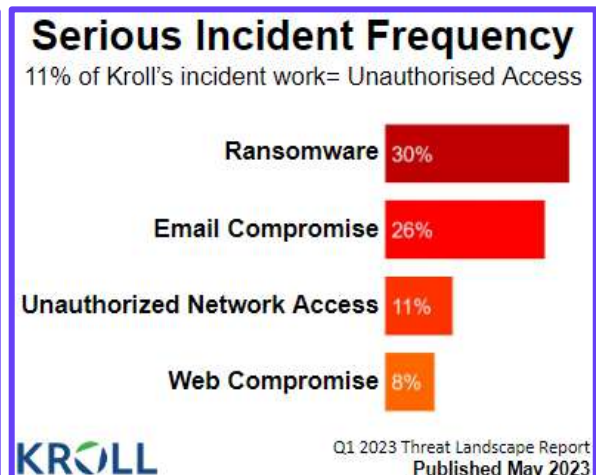
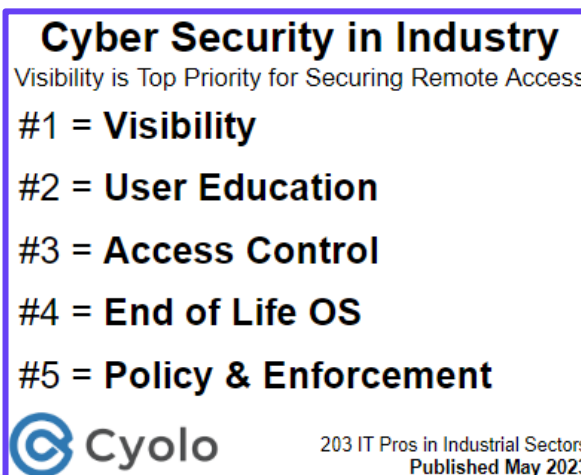
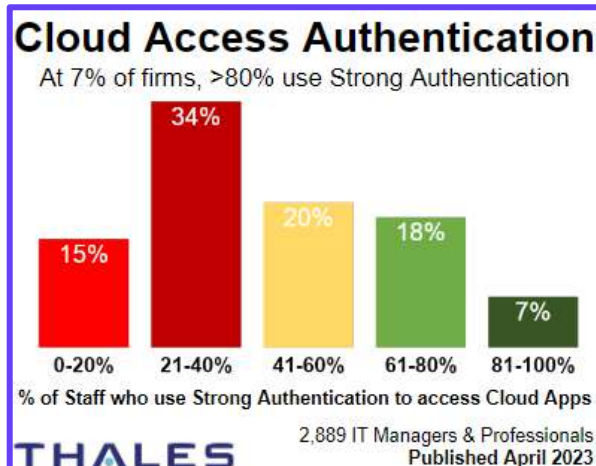
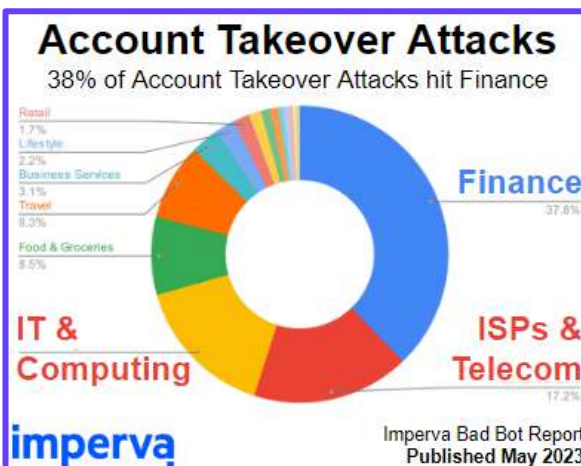
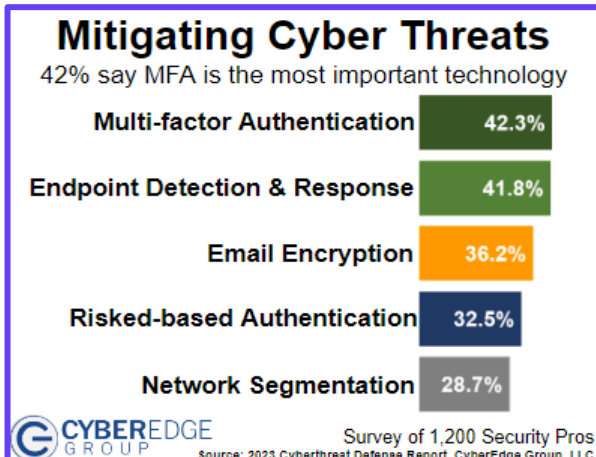
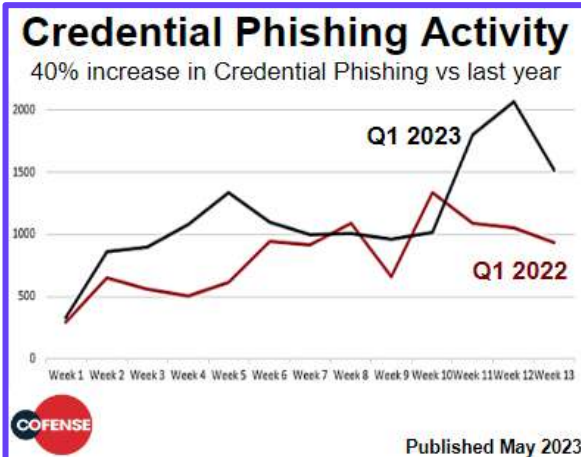
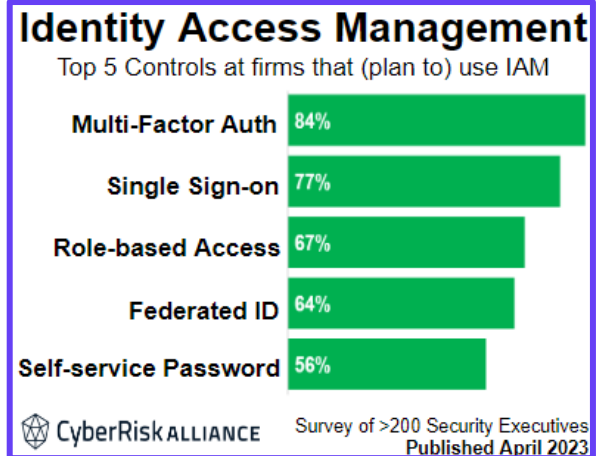
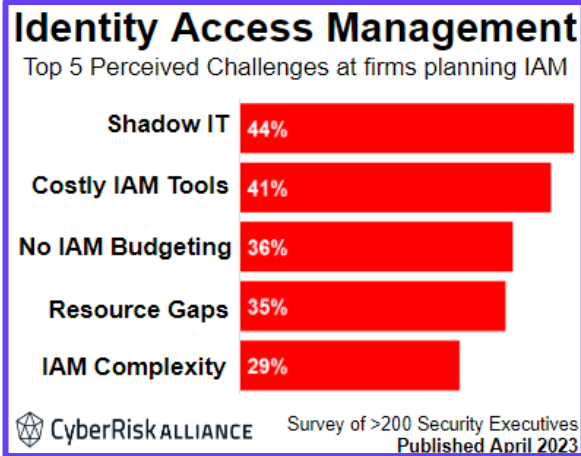
Cyber Insights: *Malware & other Threats*

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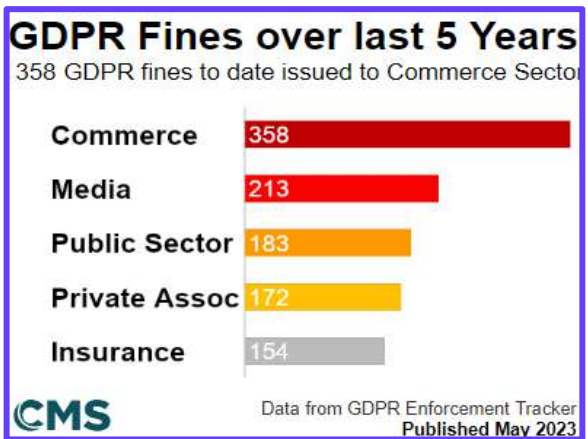
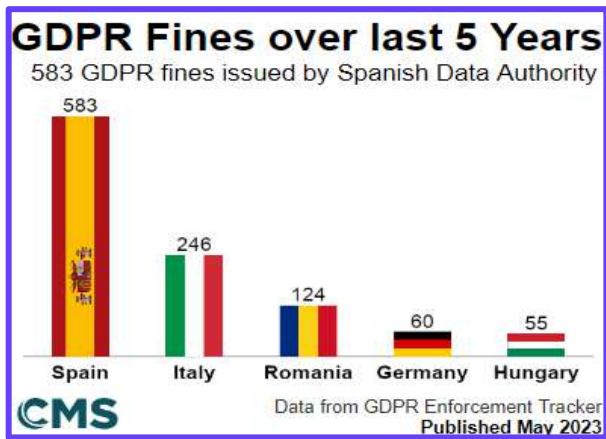
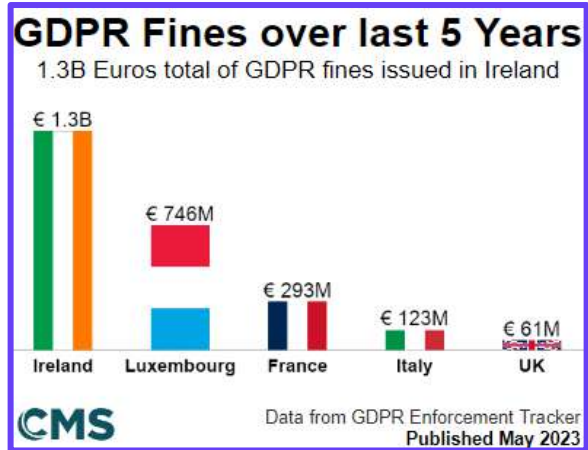
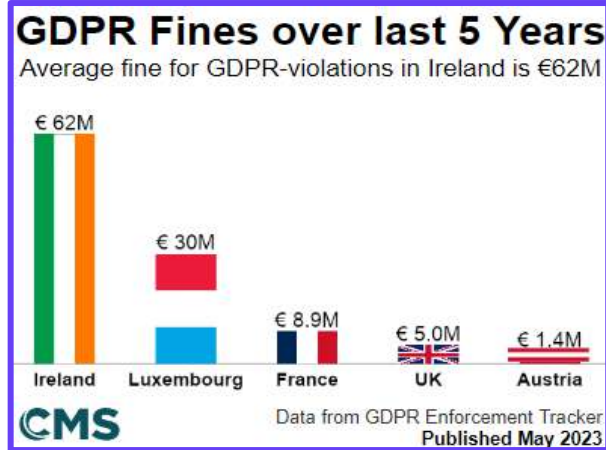
Cyber Insights: Access Management

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Cyber Insights: *Cyber Fines & Costs*

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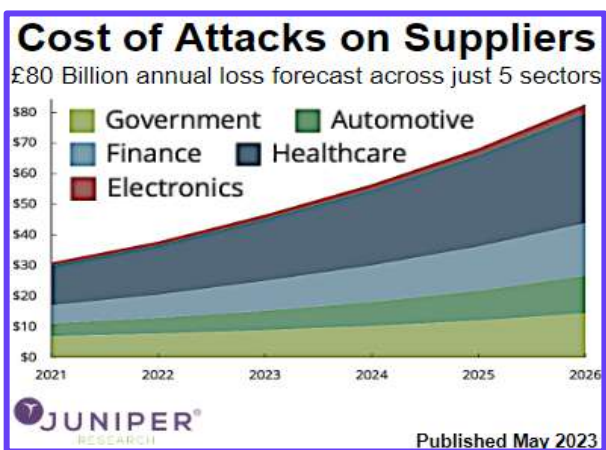
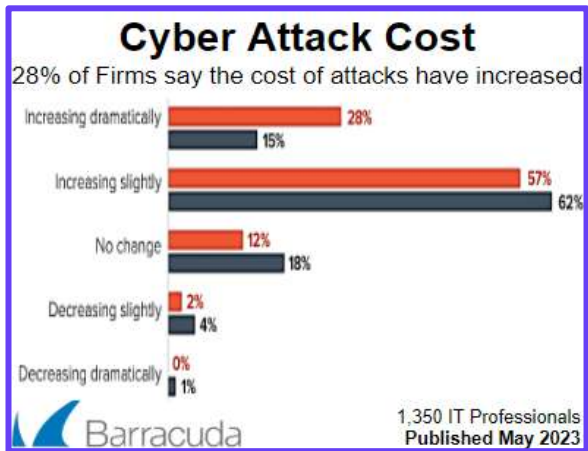


GDPR Fines by Violations

Insufficient Legal Basis is the Leading Reason

- #1 = Insufficient **Legal Basis**
- #2 = Insufficient **Cyber Security**
- #3 = **Non-compliance With GDPR**
- #4 = **Data Subject Rights Not Fulfilled**
- #5 = **Info Obligations Not Fulfilled**

CMS Data from GDPR Enforcement Tracker Published May 2023



Ransom Payments Decrease

Size of each known payment -20% from Q4/22

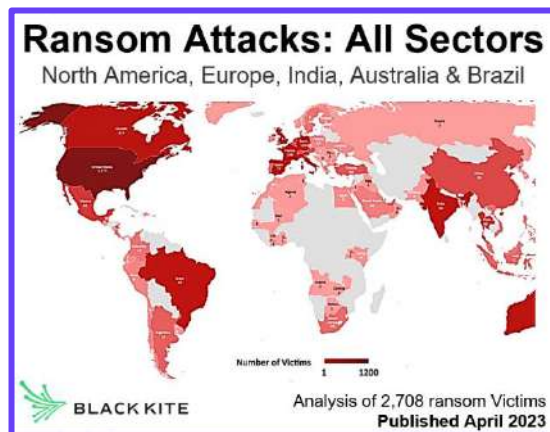
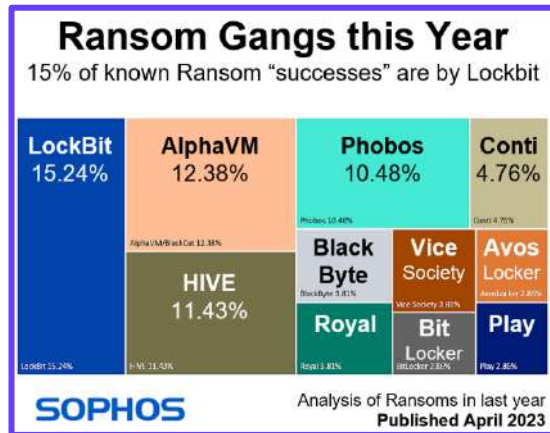
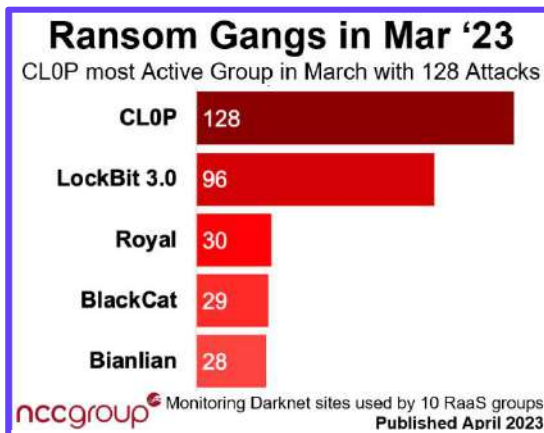
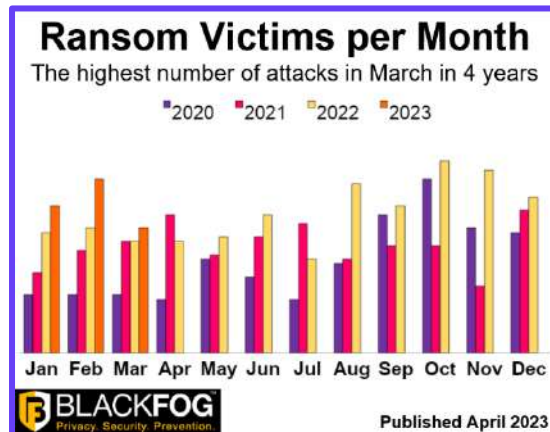
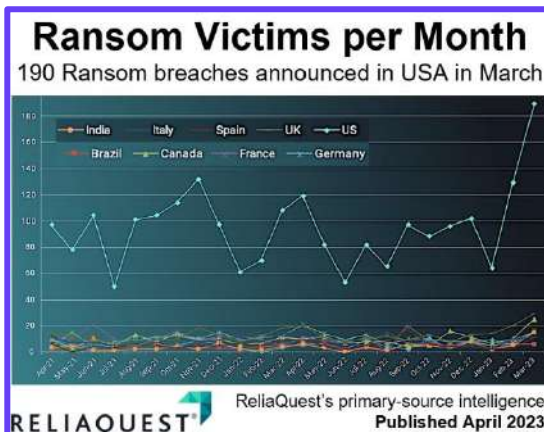
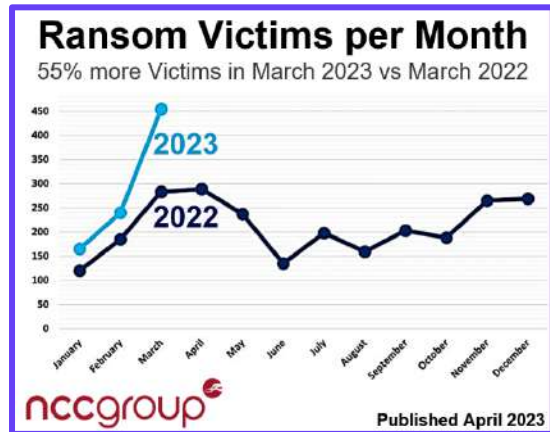
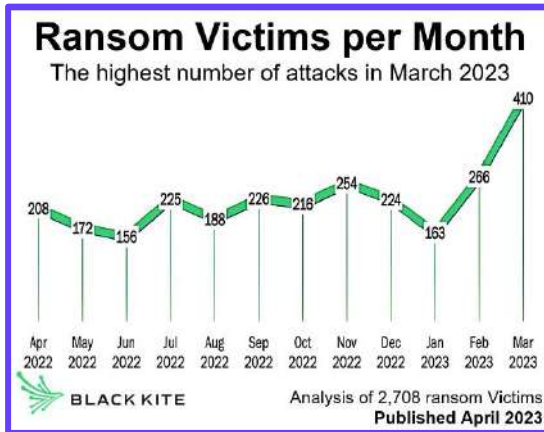
Average known Payout =

USD \$327,883

BLACKFOG Privacy. Security. Prevention. Published May 2023

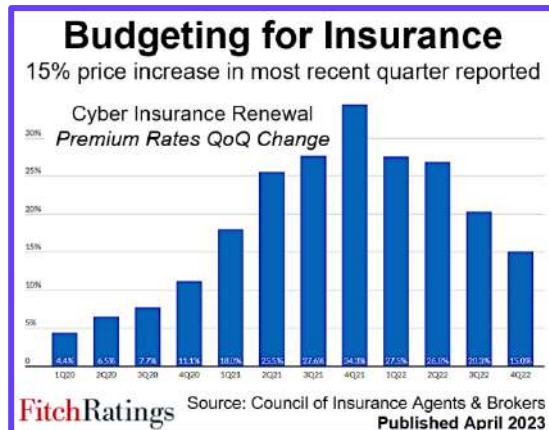
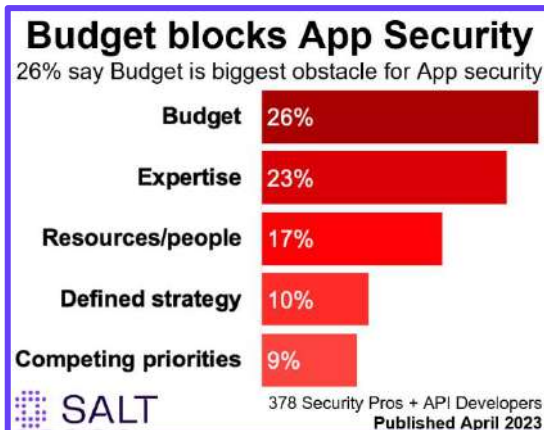
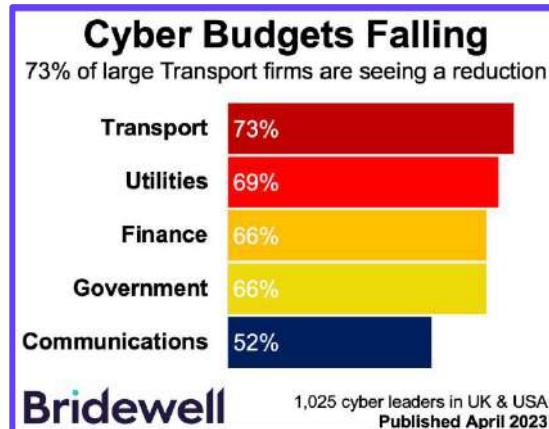
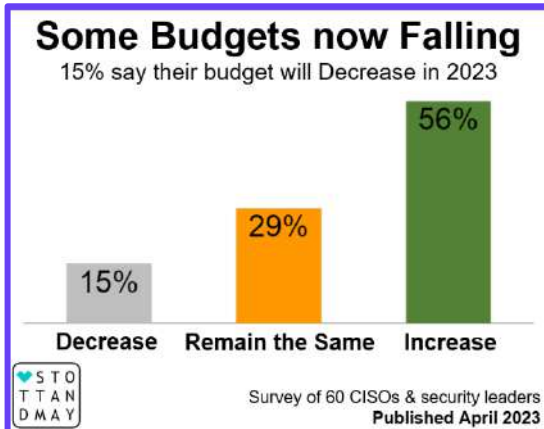
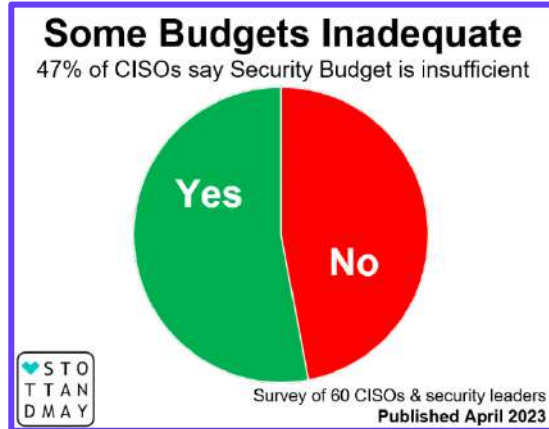
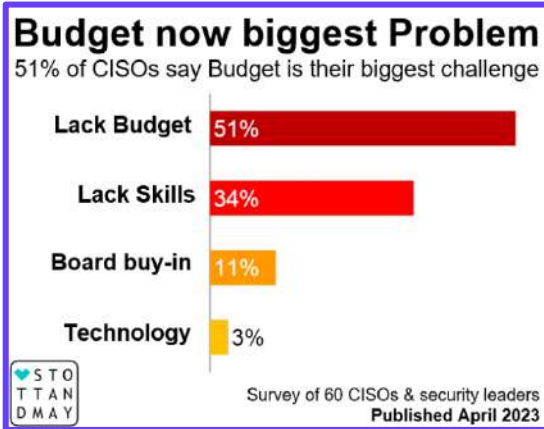
Cyber Insights: *Ransomware Attacks UP*

Click each image to see each report in full. All were published in month to May 2023



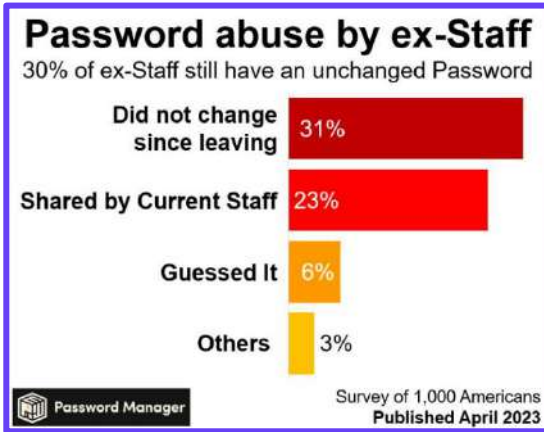
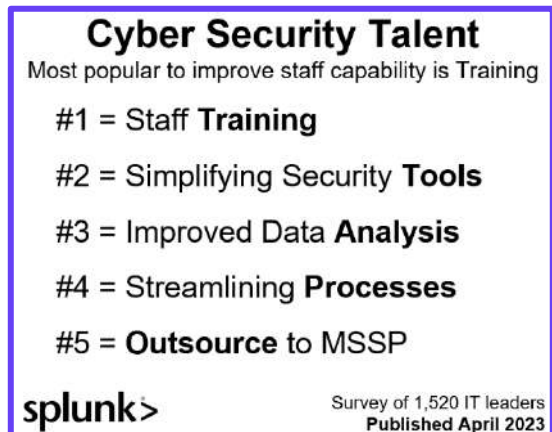
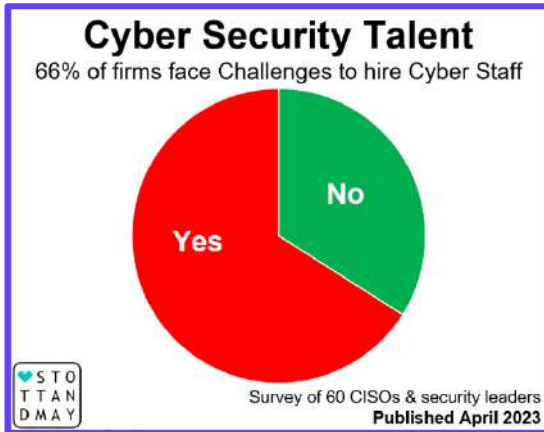
Cyber Insights: *Budget & Salaries*

Click each image to see each report in full. All were published in month to May 2023



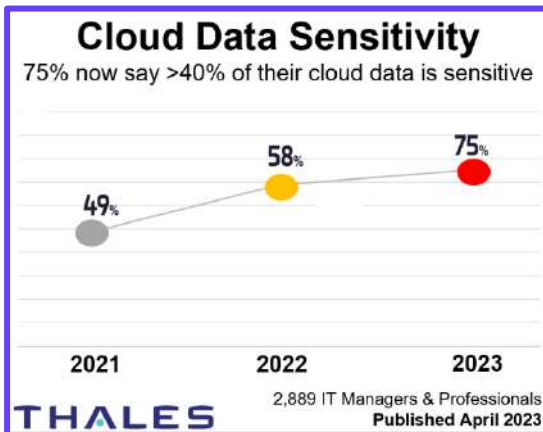
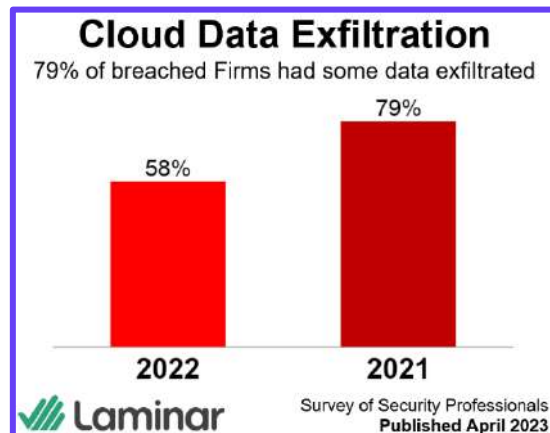
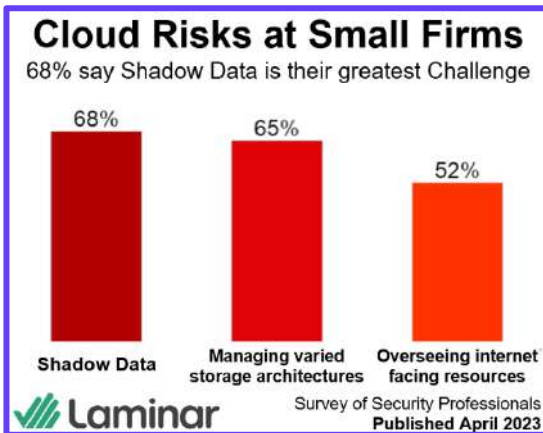
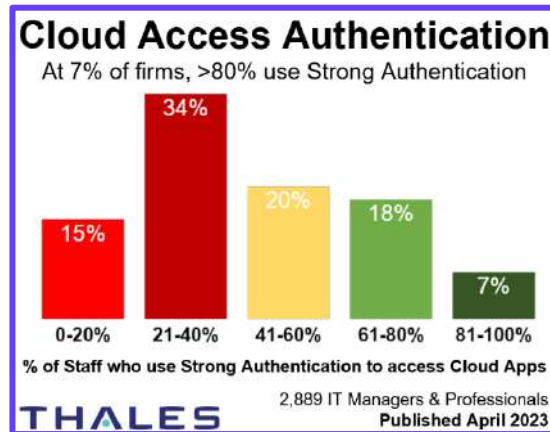
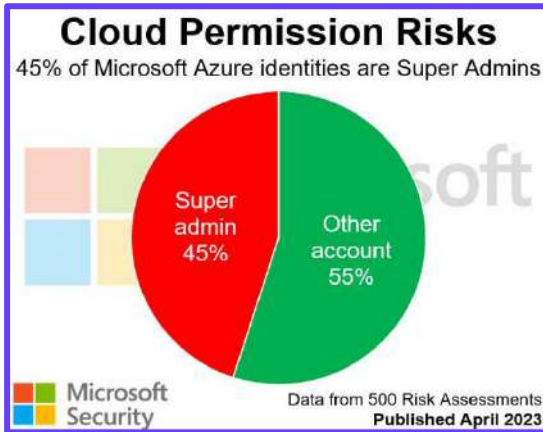
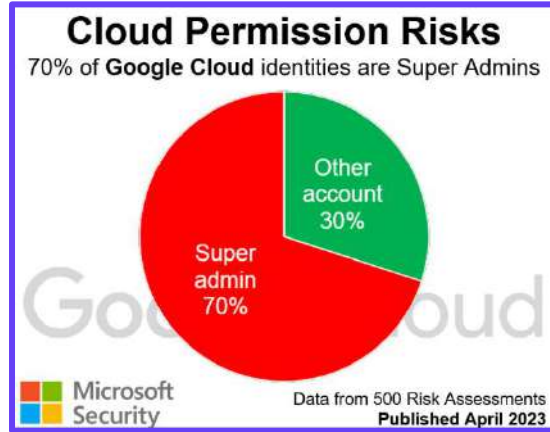
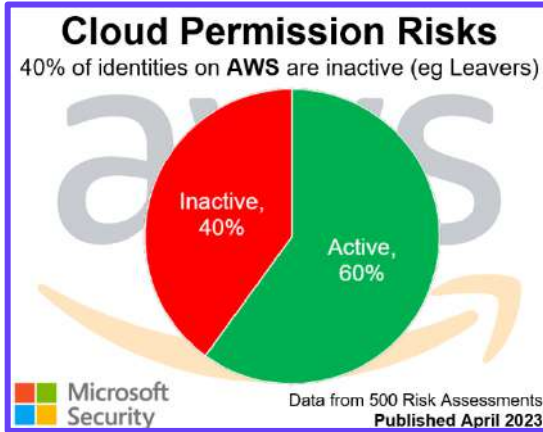
Cyber Insights: *Cyber Talent & Staff*

Click each image to see each report in full. All were published in month to May 2023



Cyber Insights: *Cloud Risks*

Click each image to see each report in full. All were published in month to May 2023



Cyber Insights: *Cyber Resilience*

Click each image to see each report in full. All were published in month to May 2023

Measures of Resilience

Status (Availability) of Systems most often used

- #1 = State of Systems
- #2 = Risk Appetite & Tolerance
- #3 = Organization Operation
- #4 = Data Security and Privacy
- #5 = Process Data

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Measures of Resilience

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Sharing Resilience Insights

79% share Resilience Insights with Executive Team

Executive Team	79%
Risk Management	69%
Crisis Management	68%
Cybersecurity	59%
Business Unit Heads	53%

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Resilience Team & IT Team

59% have a good Working Relationship with IT

Good relationship	59%
Fall under same function	20%
Needs improvement	11%

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Operational Resilience Tools

Training Software is most used to drive Resilience

- #1 = Training Software
- #2 = Data Analytics Software
- #3 = Mass Notification Software
- #4 = Risk Management Software
- #5 = Business Continuity Mgt Software

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Benefits of AI in Resilience

47% say AI has helped Improve Risk Assessments

Risk Assessments	47%
Decision Making	46%
Find & Aggregate Info	43%
Controls Management	39%
Automating Response	37%

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Time to Remediation in days

Weaponized cyber vulnerabilities closed in 15 days

Category	Windows	Non-Windows
Advanced Persistent Threats	18	22
CISA Known Vulnerabilities	16	39
Named Vulnerabilities	19	36
Weaponized Vulnerabilities	15	38

Qualys Analysis of CVEs in 2022
Published April 2023

Cyber Incident Response

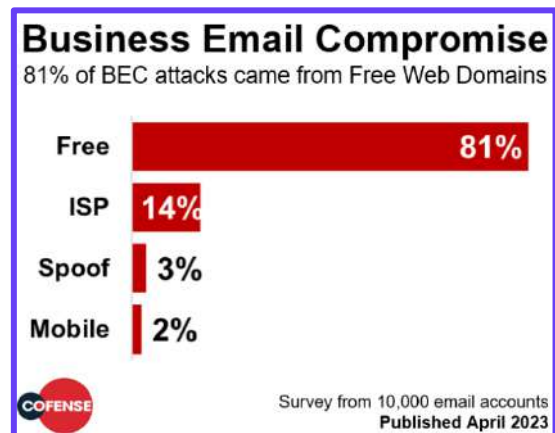
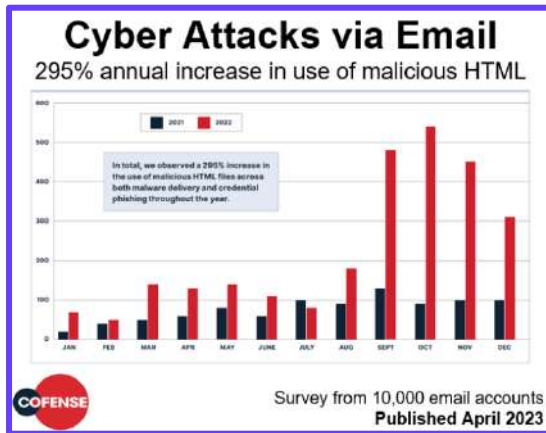
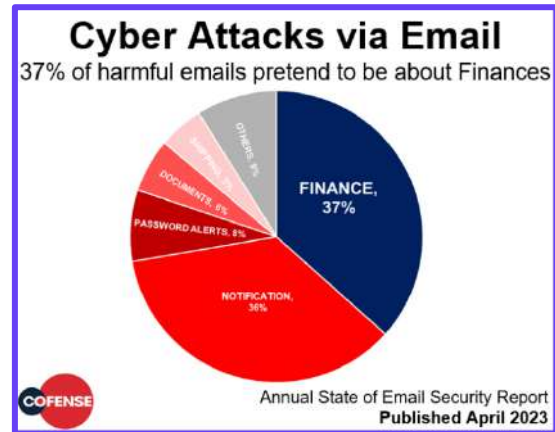
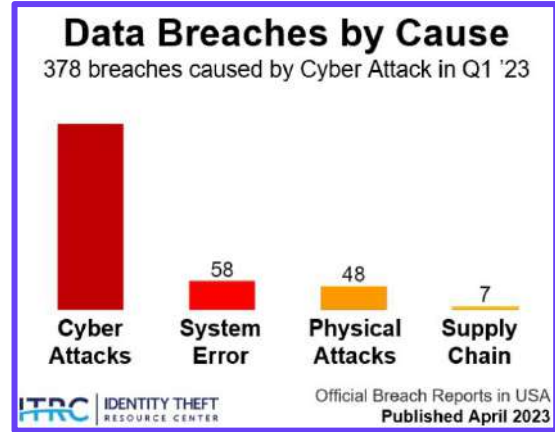
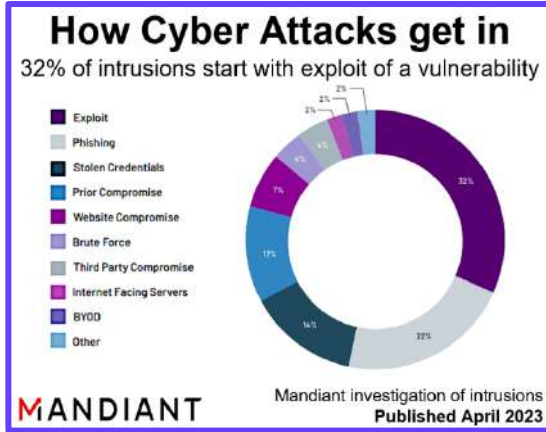
16 days now needed for Detection & Response

	2018	2019	2020	2021	2022
All	78	56	24	21	16
External	184	141	73	28	19
Internal	50.5	30	12	18	13

MANDIANT Mandiant assessment of global dwell time
Published April 2023

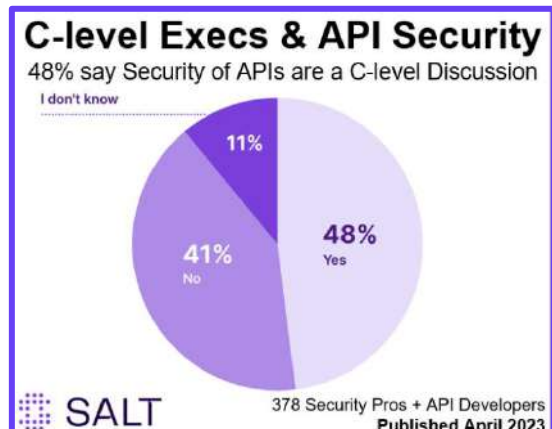
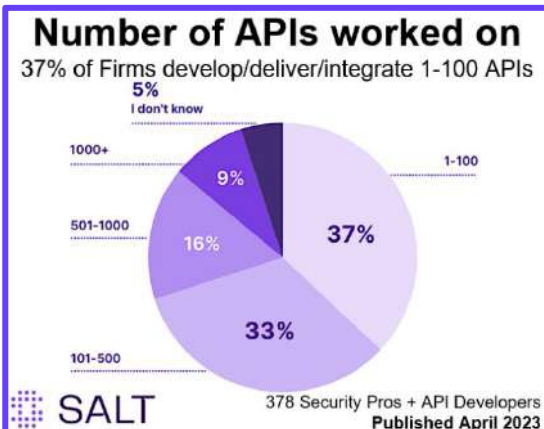
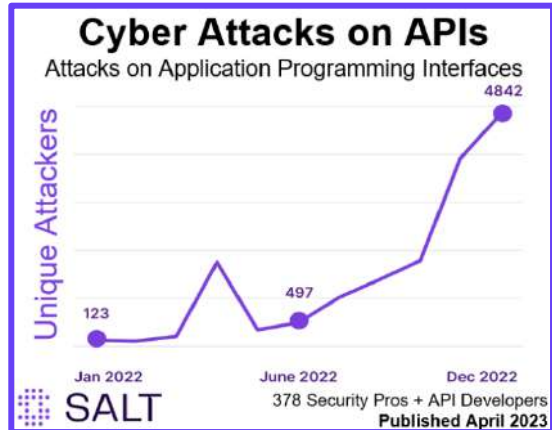
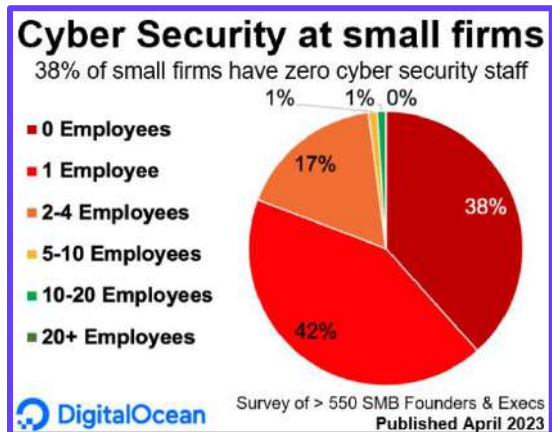
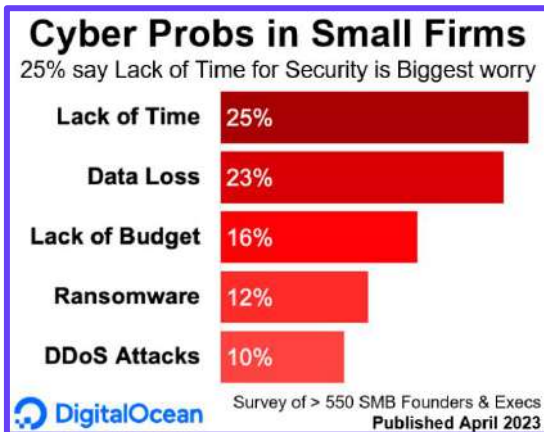
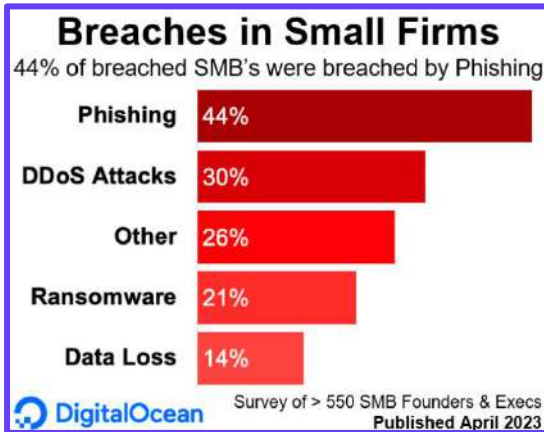
Cyber Insights: *Attack Vectors*

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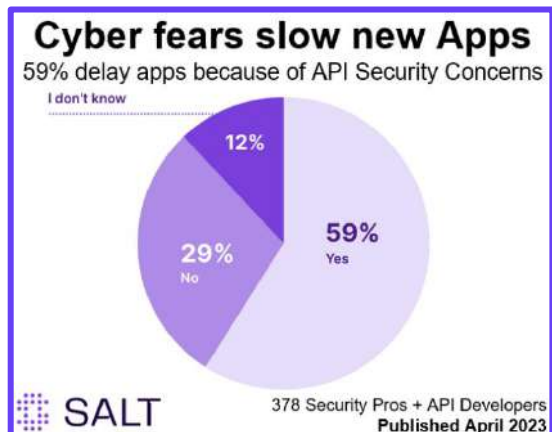
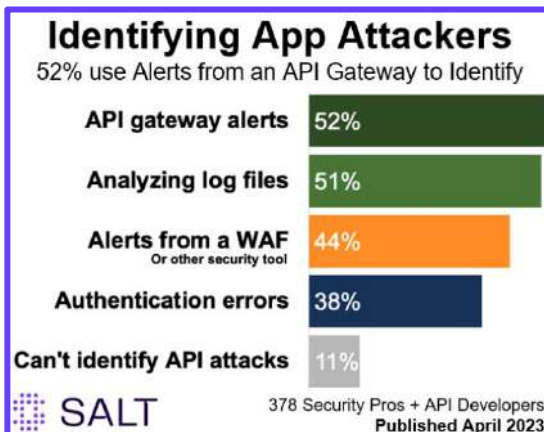
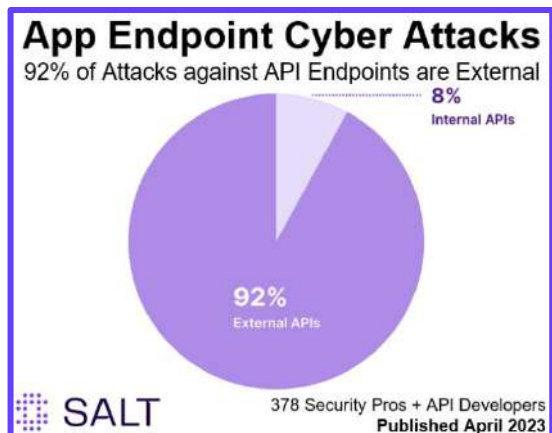
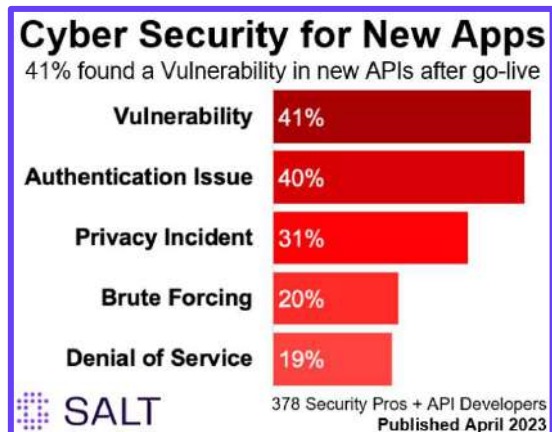
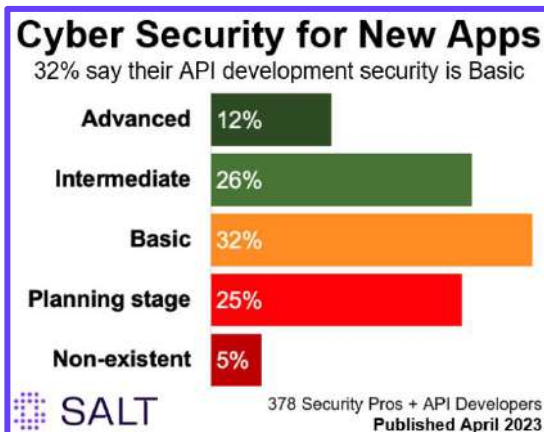
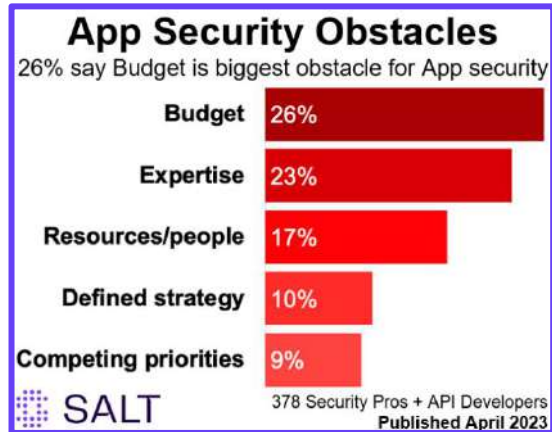
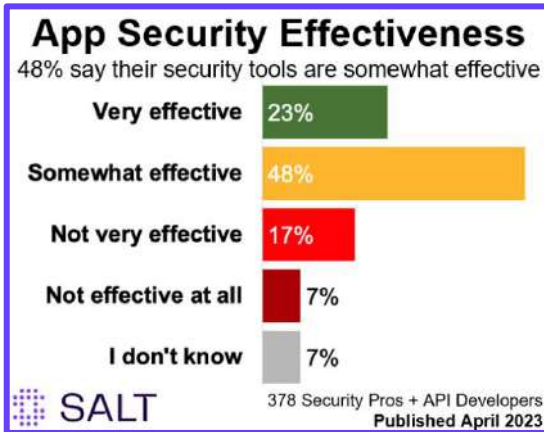
Cyber Insights: *Small Firms, & APIs*

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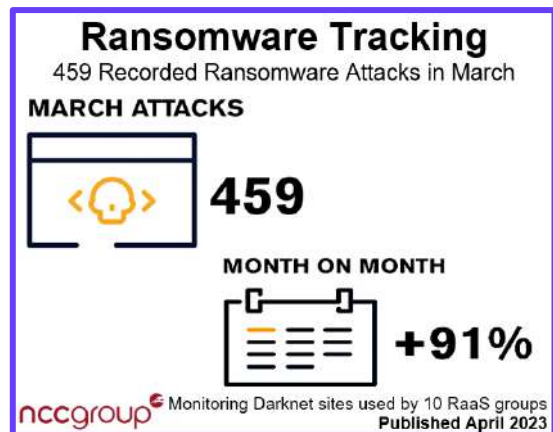
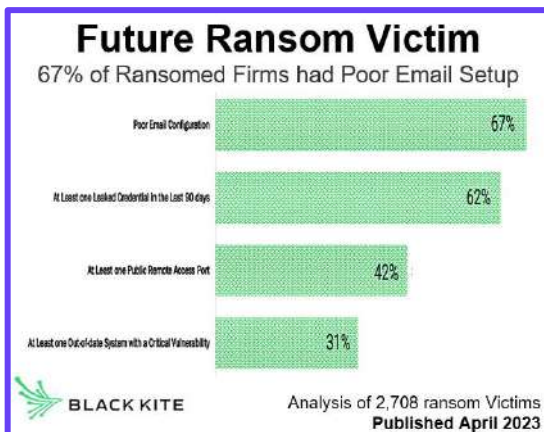
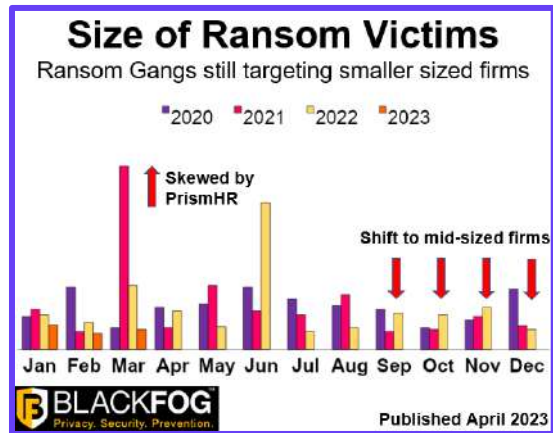
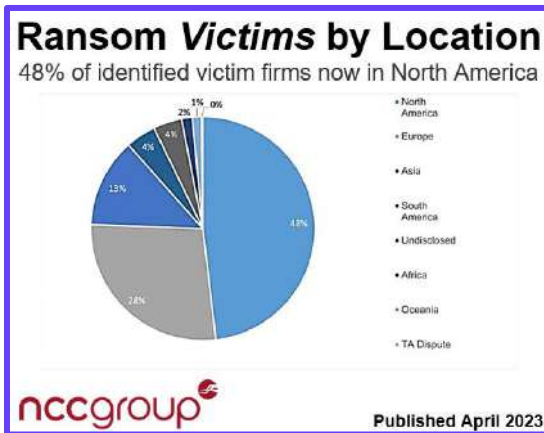
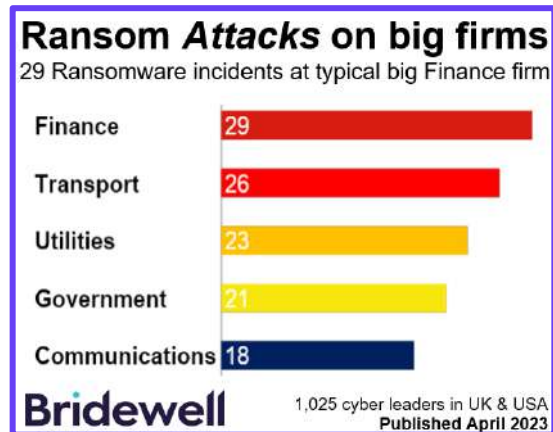
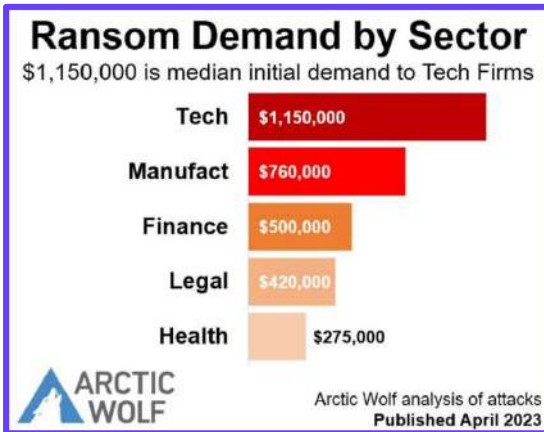
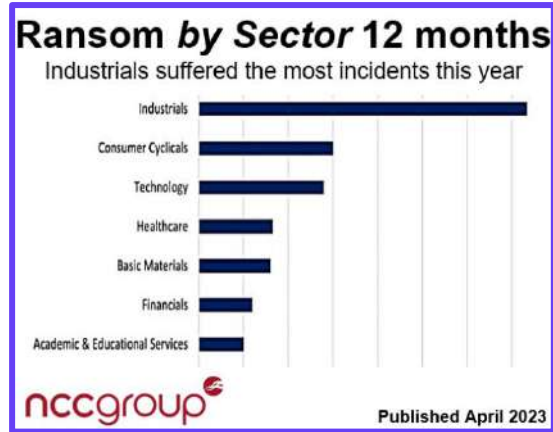
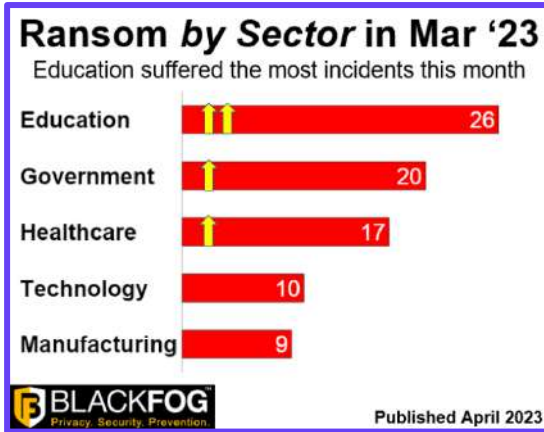
Cyber Insights: *Cyber Security for Apps*

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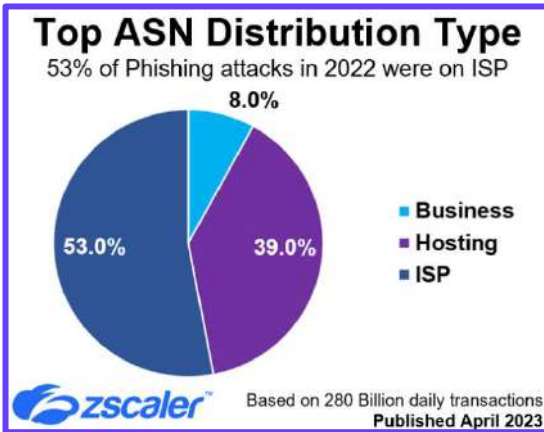
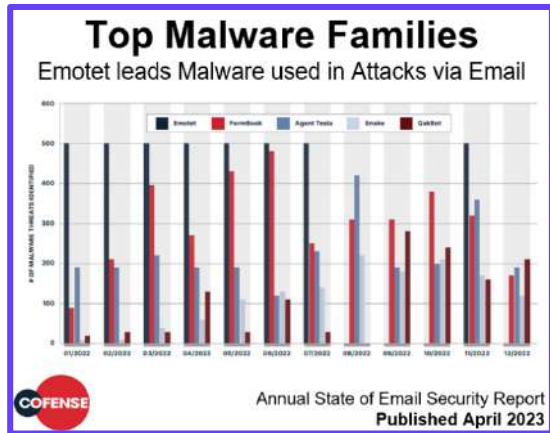
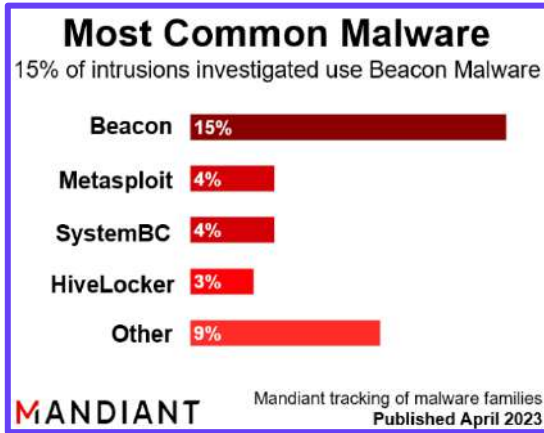
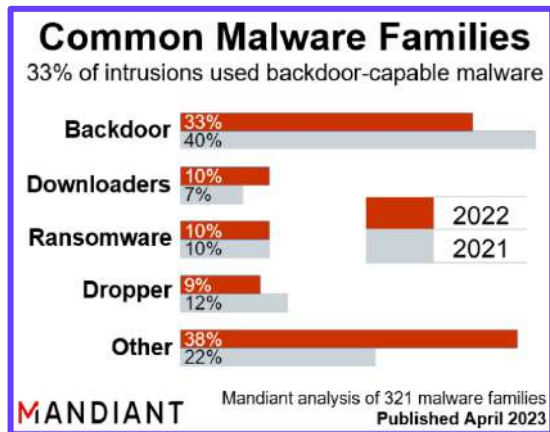
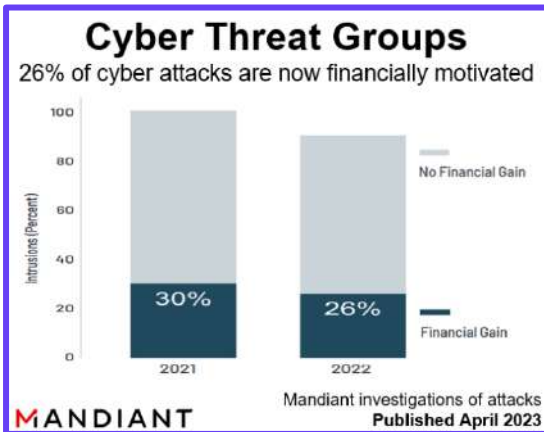
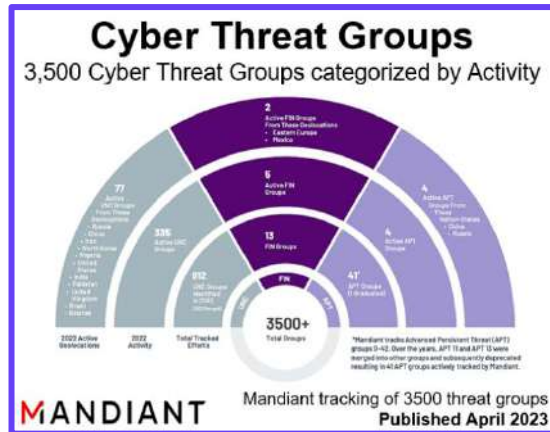
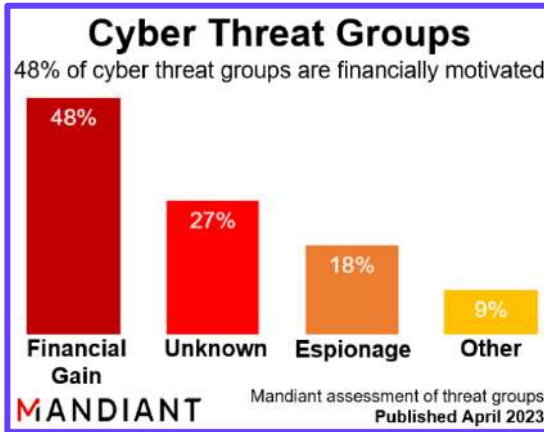
Cyber Insights: *Ransom by Sector*

Click each image to see each report in full. All were published in month to May 2023



Cyber Insights: *Threats and Malware*

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Cyber Insights: *Detailed Report*

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OECD Cyber and AI
Published April '23 Framework to secure use of AI

This thumbnail shows the cover and first few pages of the OECD report. It features a green and blue abstract graphic on the left and a table of contents on the right. The main title is 'Cyber and AI' and the subtitle is 'Framework to secure use of AI'.

CSA ChatGPT & Security
Published Apr '23 The Security Implications of ChatGPT

This thumbnail shows the cover and first few pages of the CSA report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'ChatGPT & Security' and the subtitle is 'The Security Implications of ChatGPT'.

National Cyber Security Centre UK Cyber Force
Published Apr '23 Responsible Cyber Power in Practice

This thumbnail shows the cover and first few pages of the UK Cyber Force report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'UK Cyber Force' and the subtitle is 'Responsible Cyber Power in Practice'.

Shifting the Balance of Cybersecurity Risk
Published Apr '23

This thumbnail shows the cover and first few pages of the report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'Shifting the Balance of Cybersecurity Risk'.

edpb Streamlining Enforcement Through Cooperation
Published Apr '23

This thumbnail shows the cover and first few pages of the edpb report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'Streamlining Enforcement Through Cooperation'.

CANADIAN CENTRE FOR CYBER SECURITY Threat Assessment
Published April 2023 State of Canada's Cyber Security

This thumbnail shows the cover and first few pages of the Canadian Centre for Cyber Security report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'Threat Assessment' and the subtitle is 'State of Canada's Cyber Security'.

enisa Cloud CyberSecurity Market
Published Mar '23 Demand & Supply of Cybersecurity

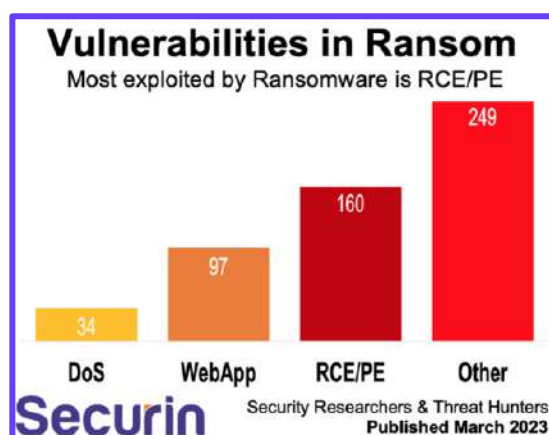
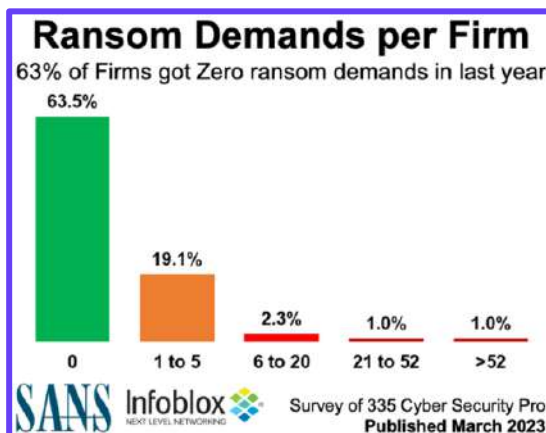
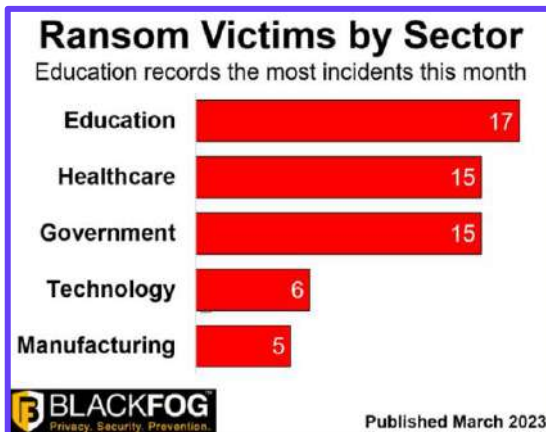
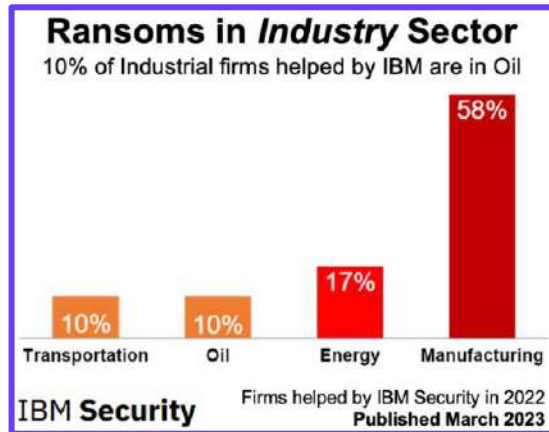
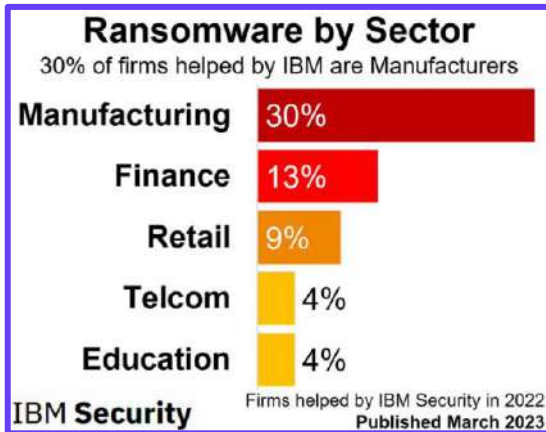
This thumbnail shows the cover and first few pages of the enisa report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'Cloud CyberSecurity Market' and the subtitle is 'Demand & Supply of Cybersecurity'.

Security by Design & Default
Published Apr '23 A Roadmap for Technology Manufacturer

This thumbnail shows the cover and first few pages of the report. It features a blue and white abstract graphic on the left and a table of contents on the right. The main title is 'Security by Design & Default' and the subtitle is 'A Roadmap for Technology Manufacturer'.

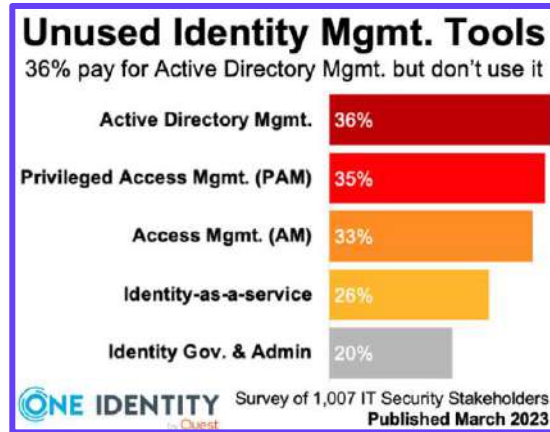
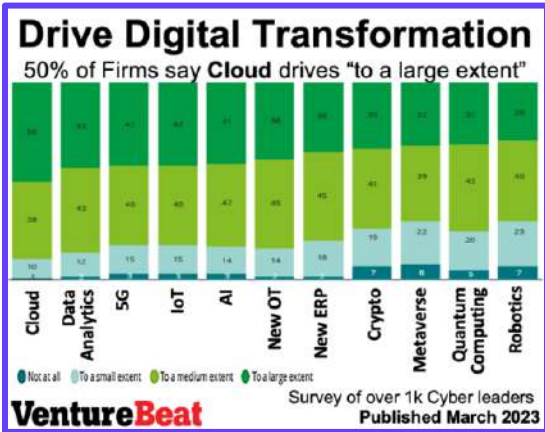
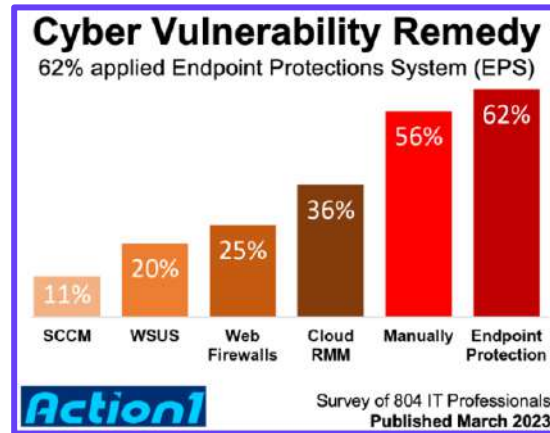
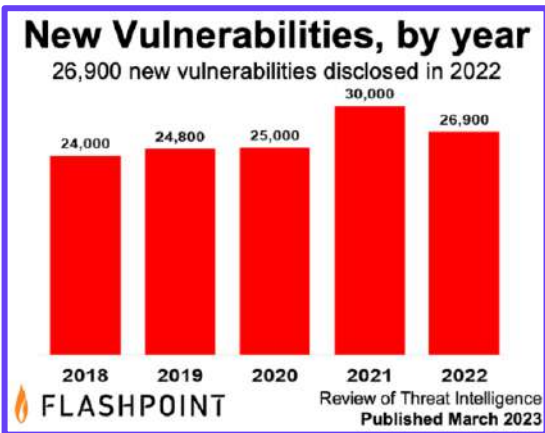
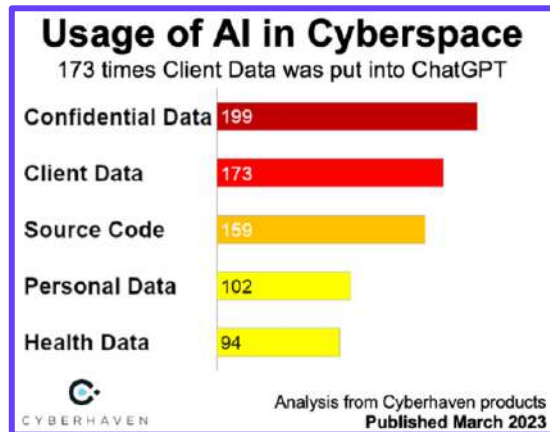
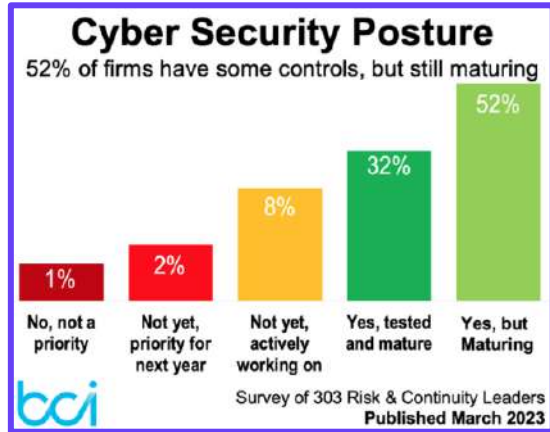
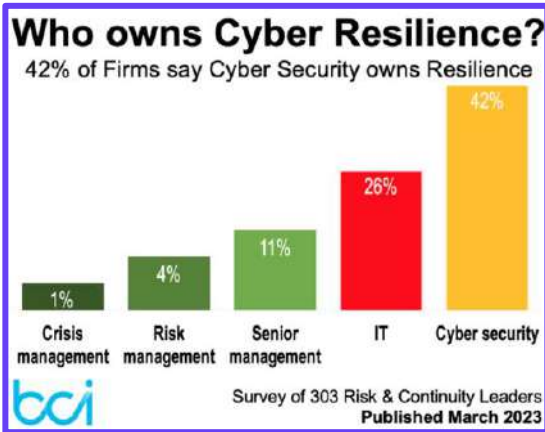
Cyber Insights: *Ransom & Sectors*

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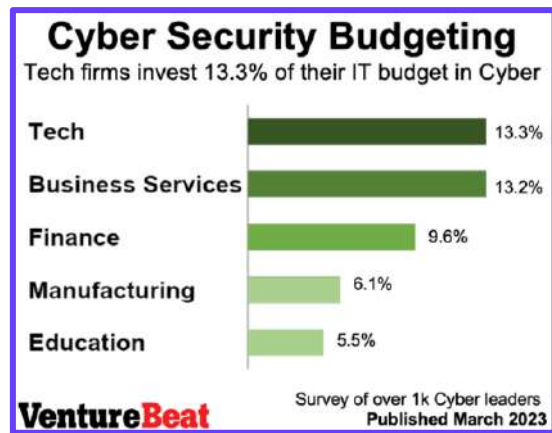
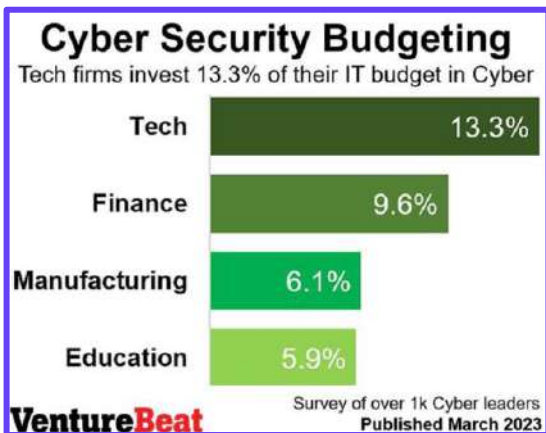
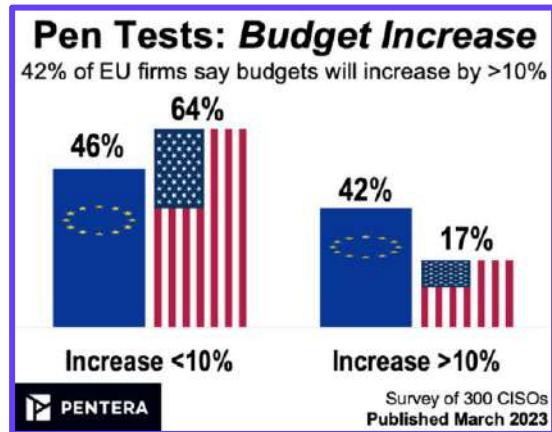
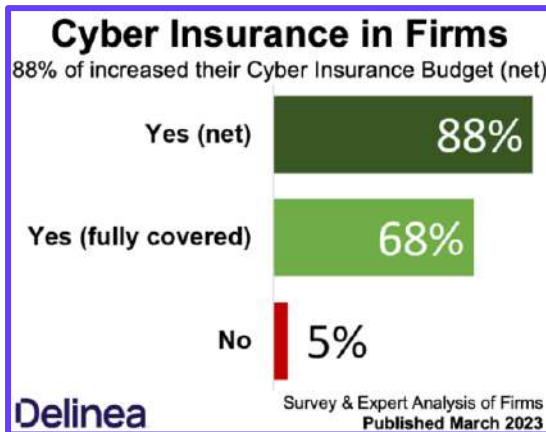
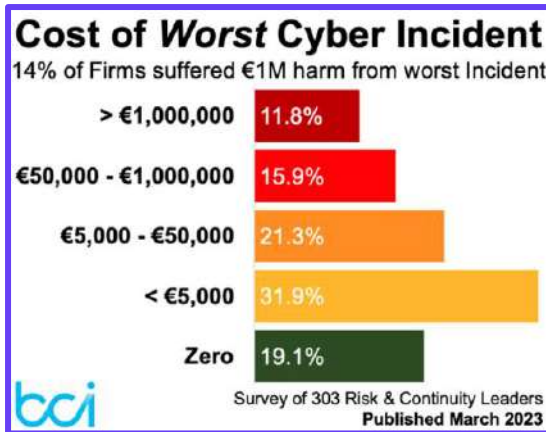
Cyber Insights: *Cyber Risks & Vectors*

Click each image to see each report in full. All were published in month to April 2023



Cyber Insights: *Cyber Finances*

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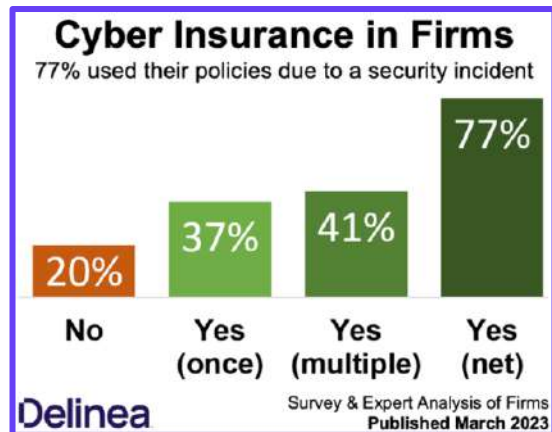
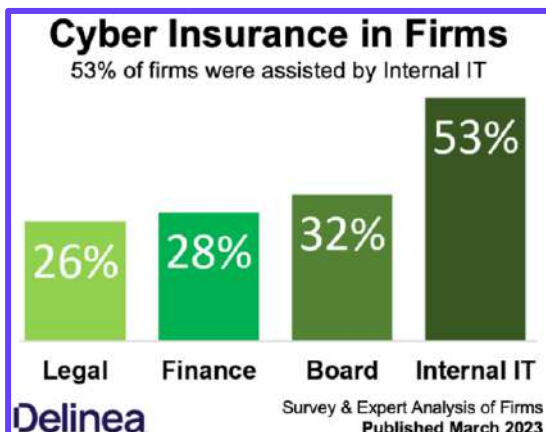
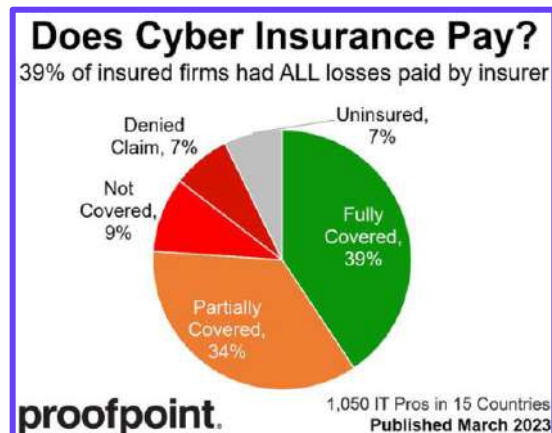
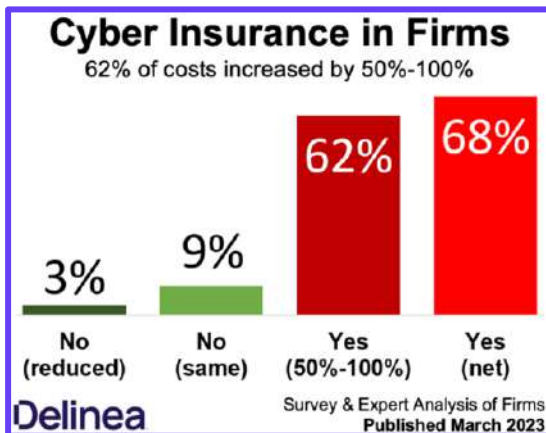
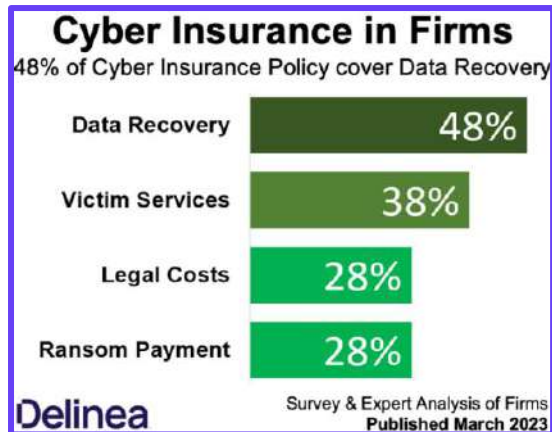
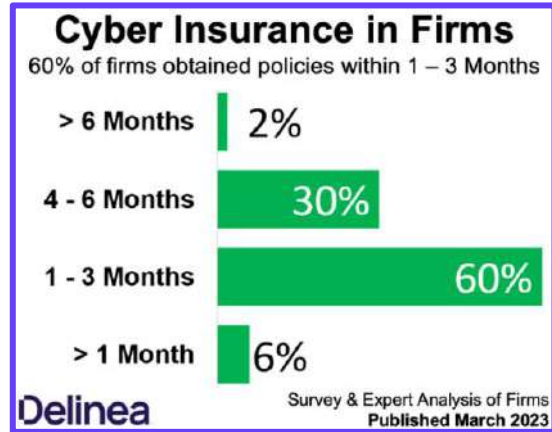
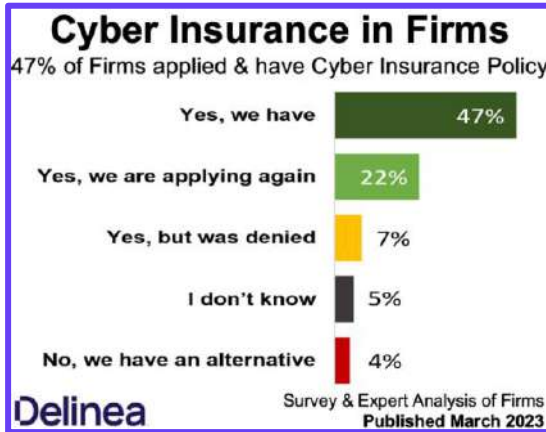
Cybersecurity Budget

Cyber Budgets for SMB's to Enterprises

Boardish Published Mar '23

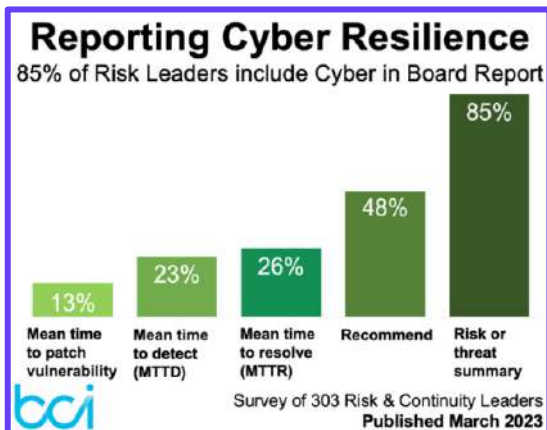
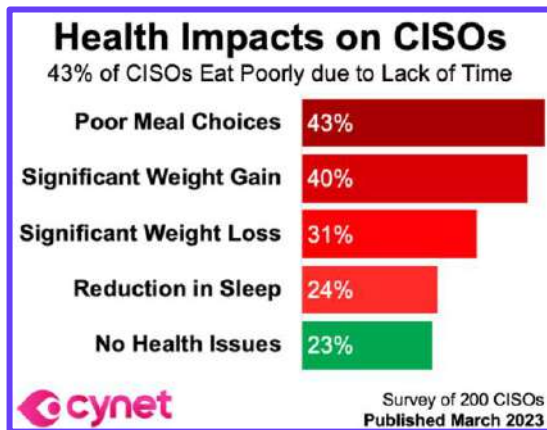
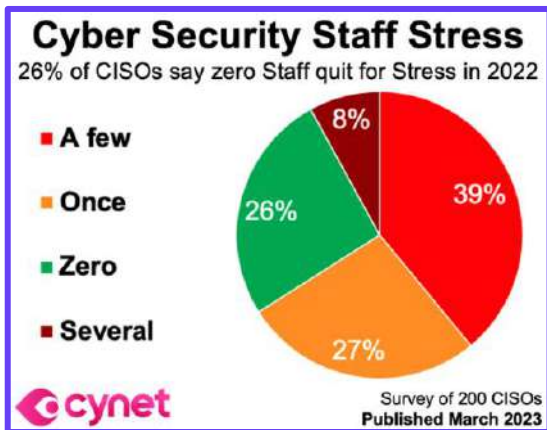
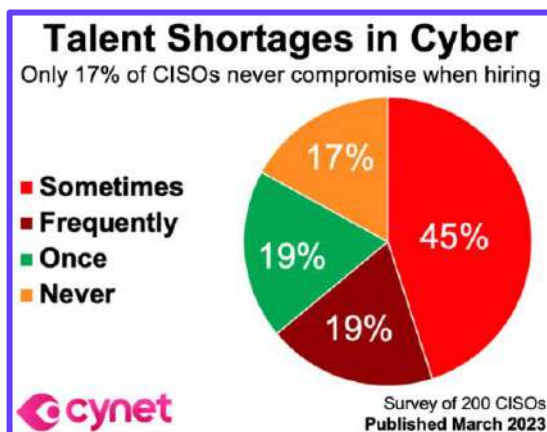
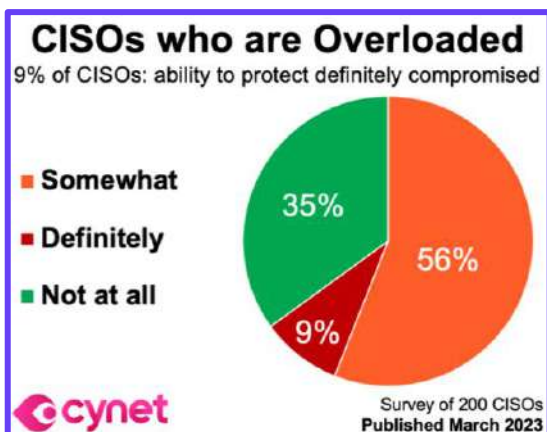
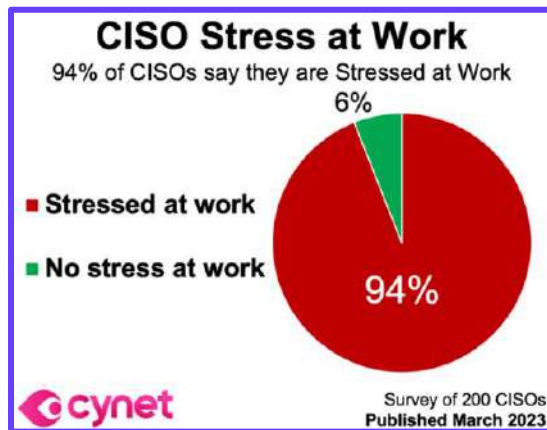
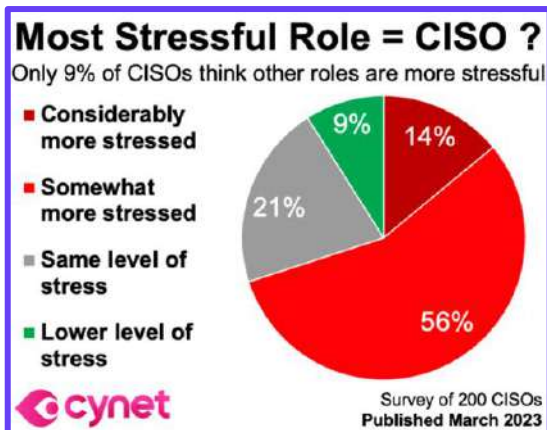
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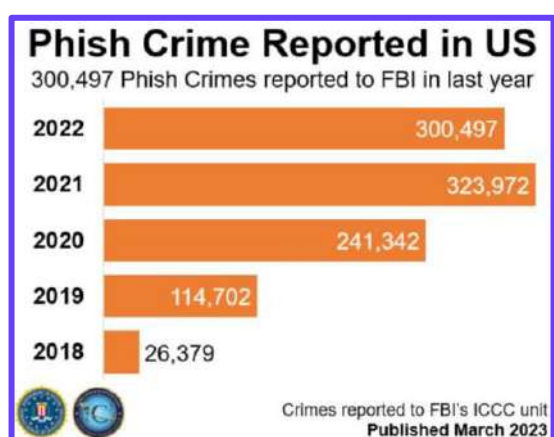
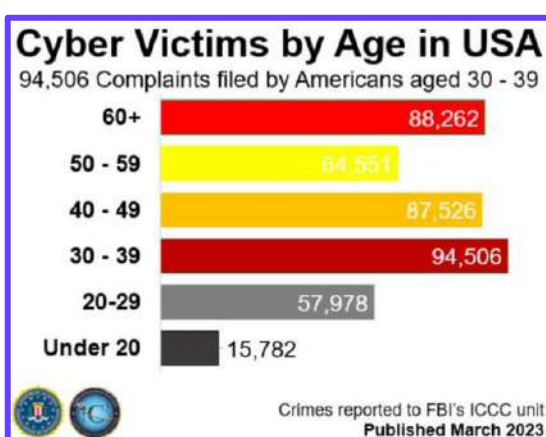
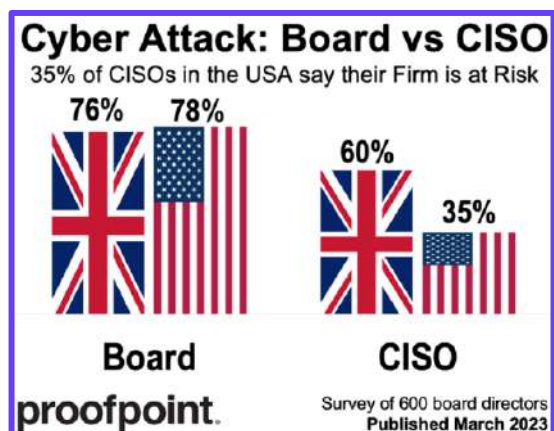
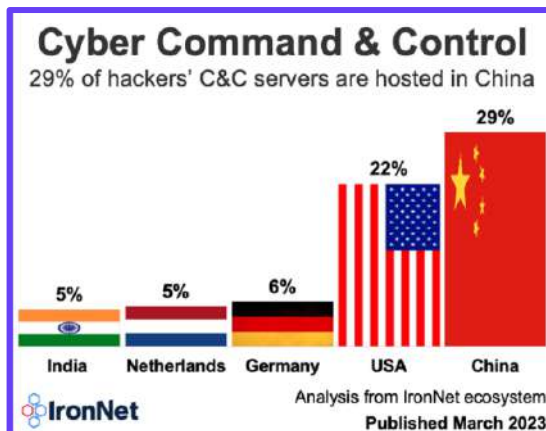
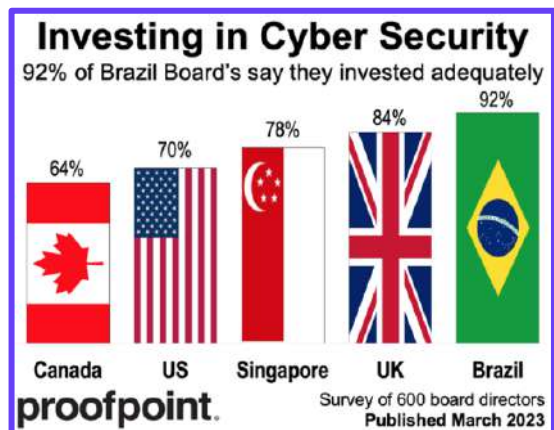
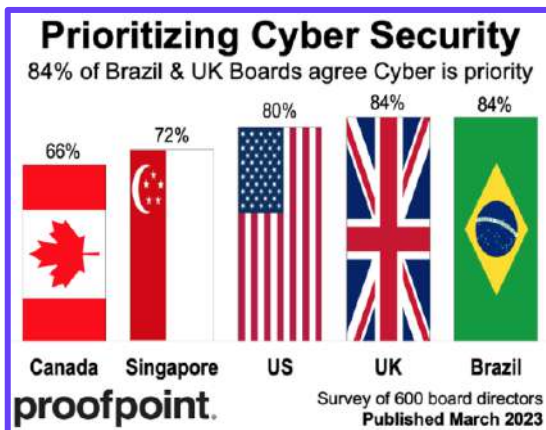
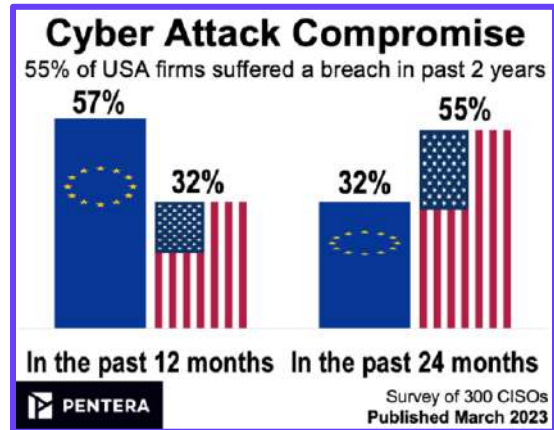
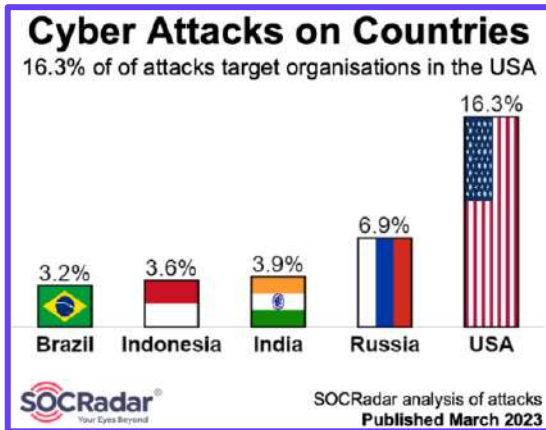
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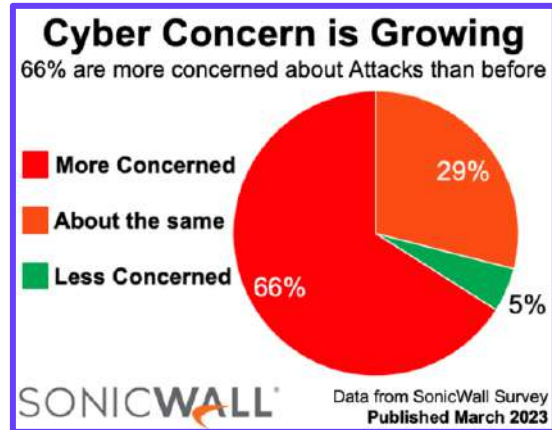
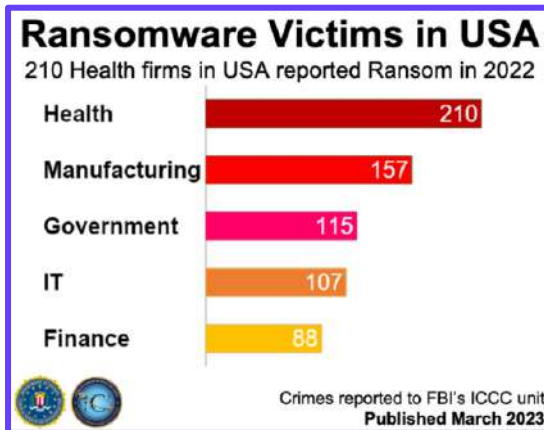
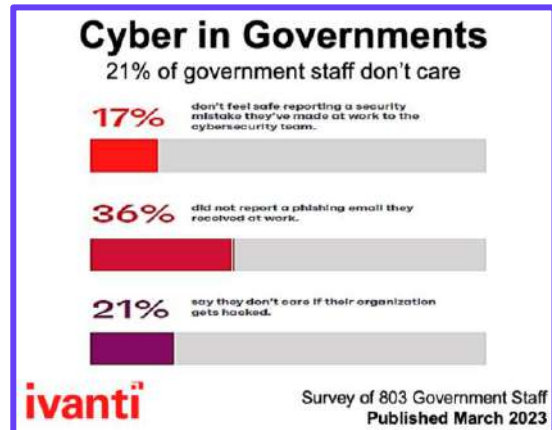
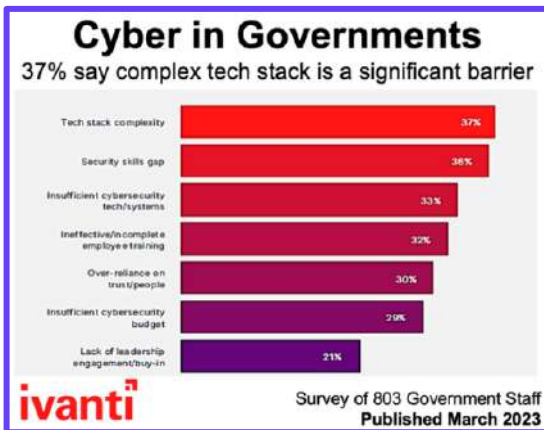
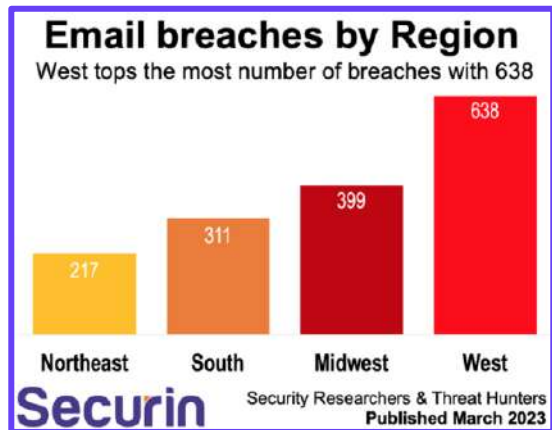
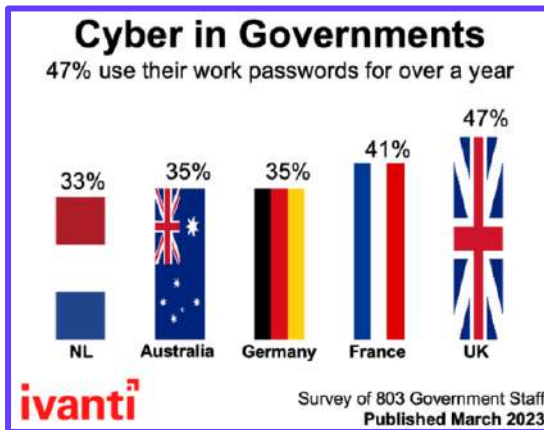
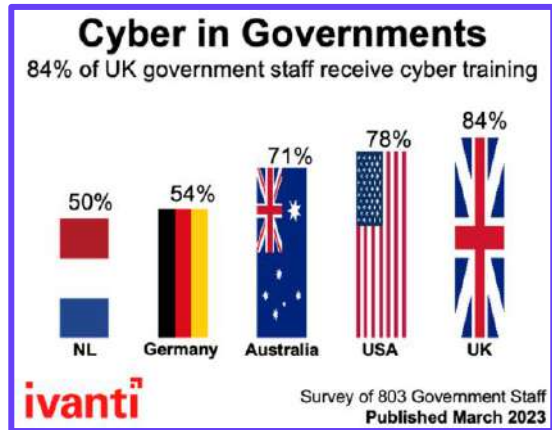
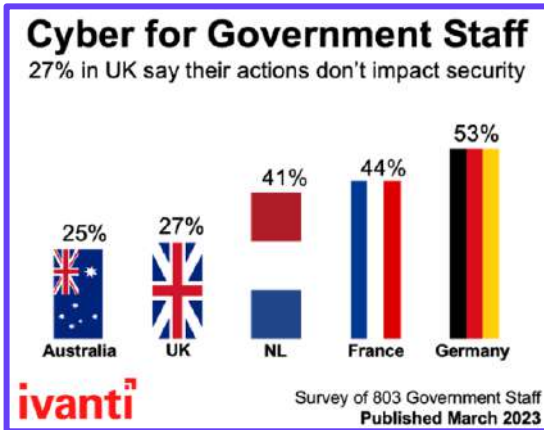
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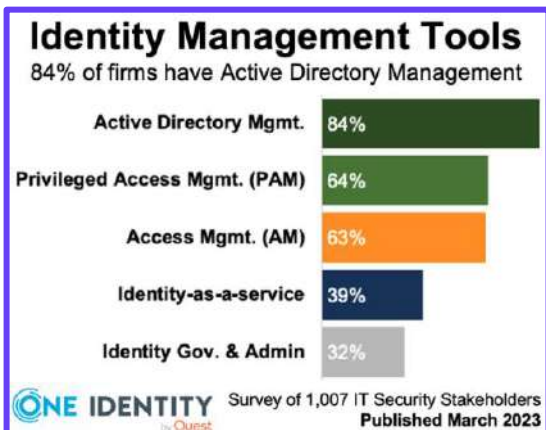
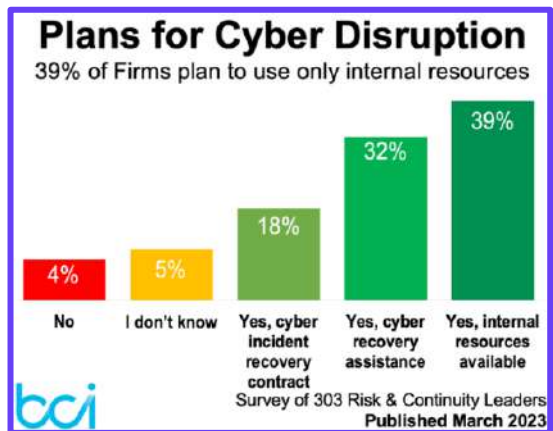
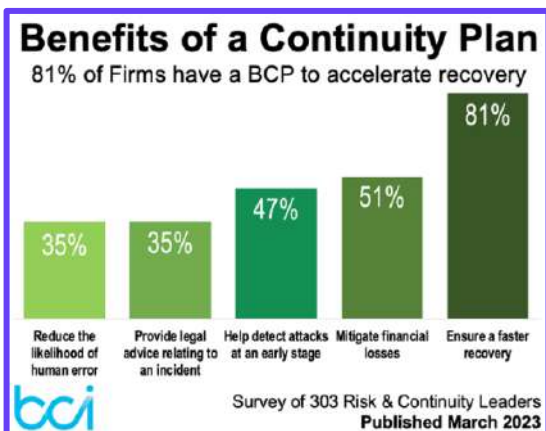
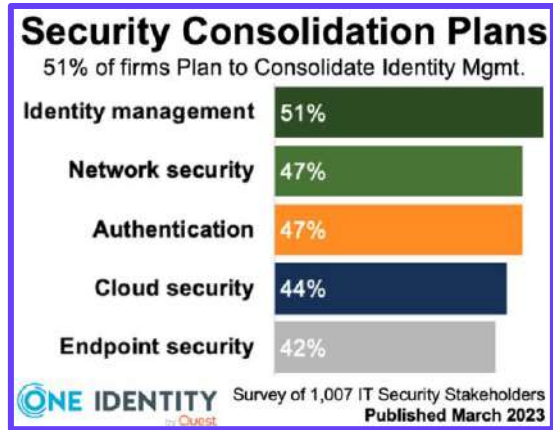
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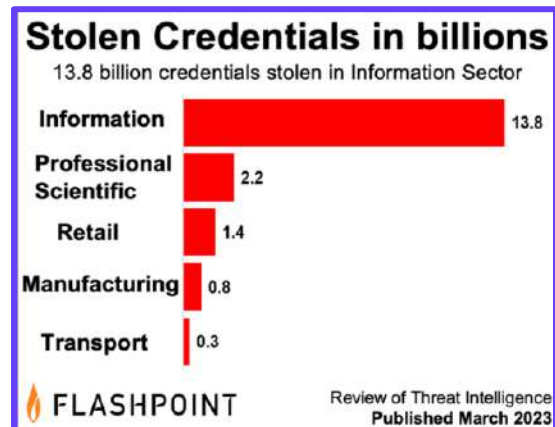
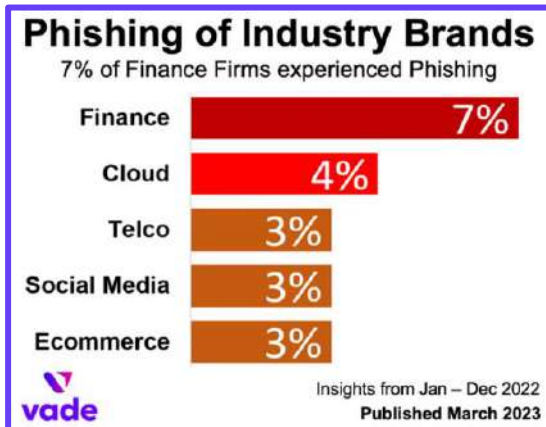
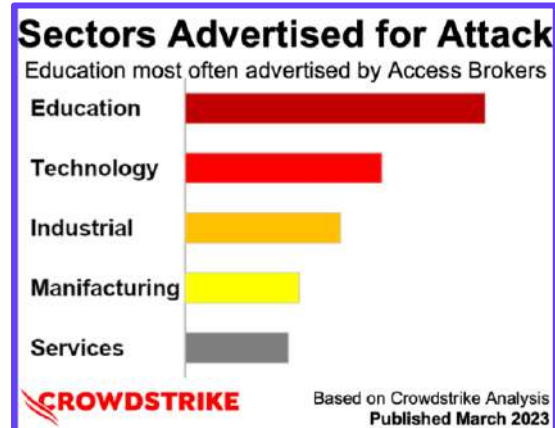
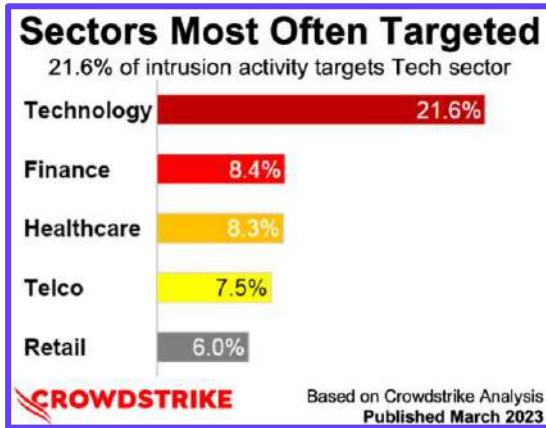
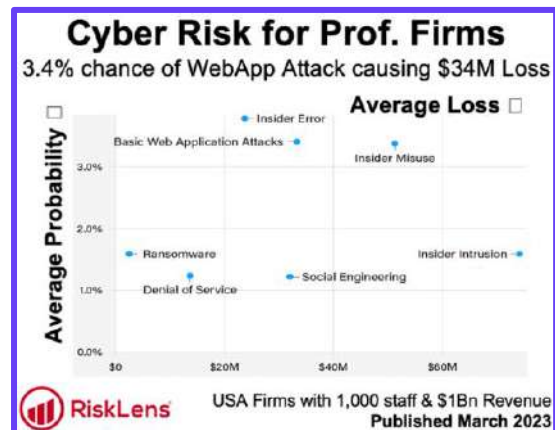
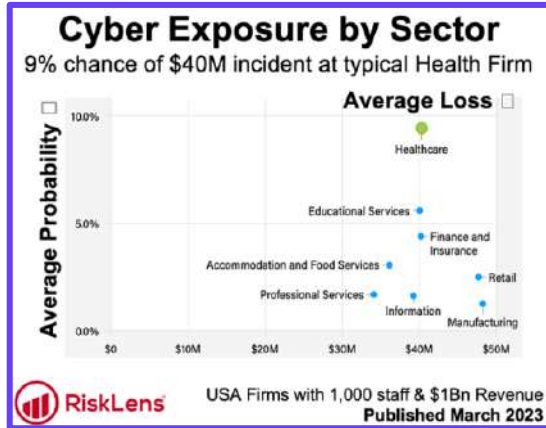
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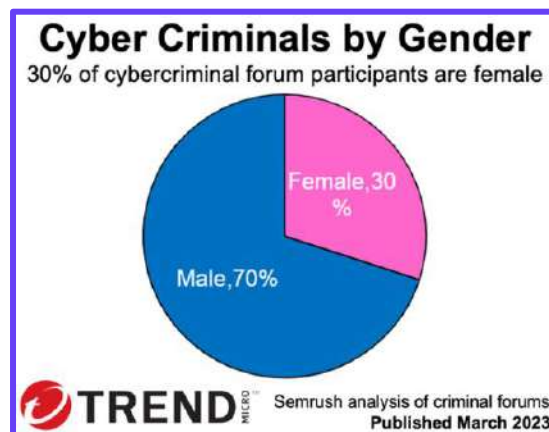
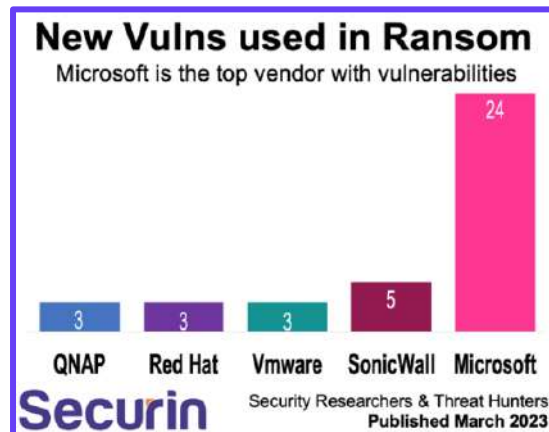
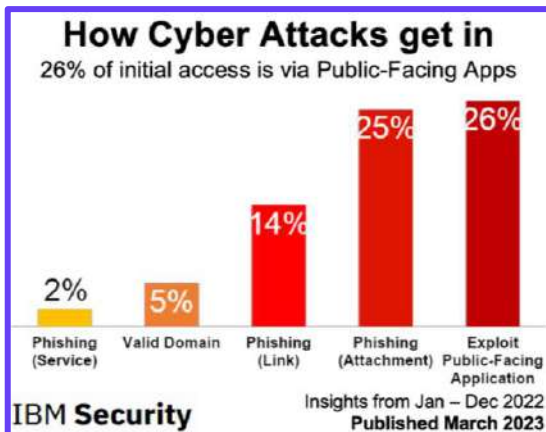
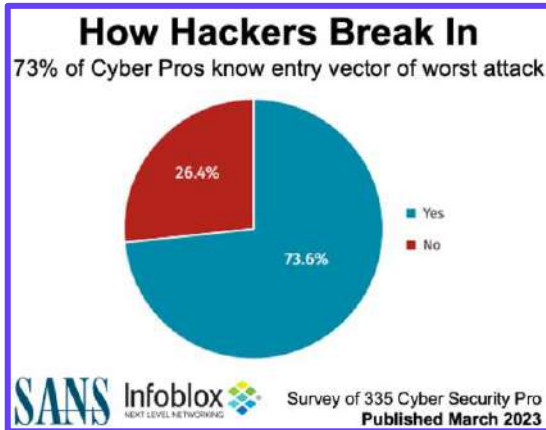
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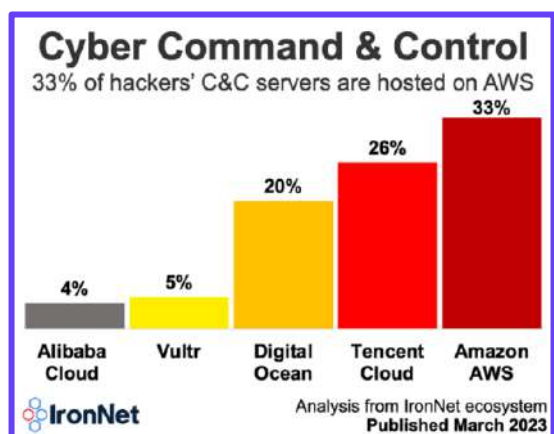
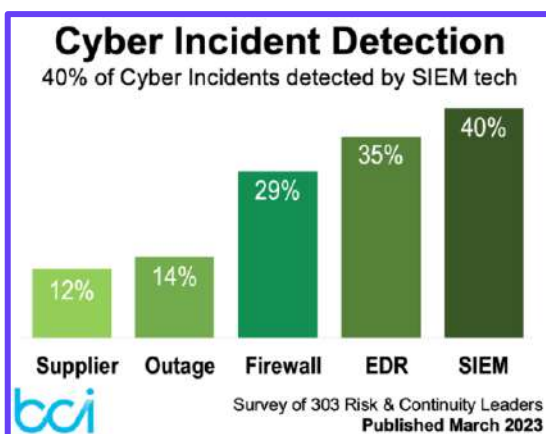
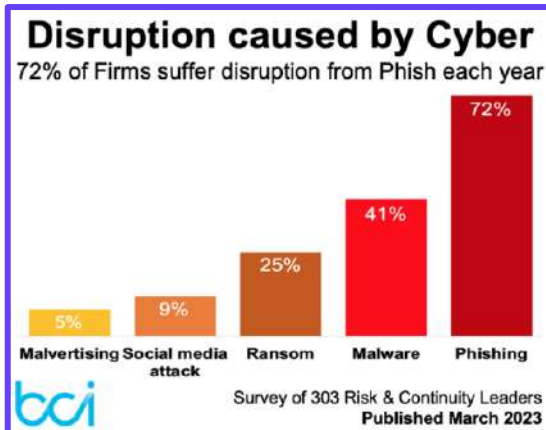
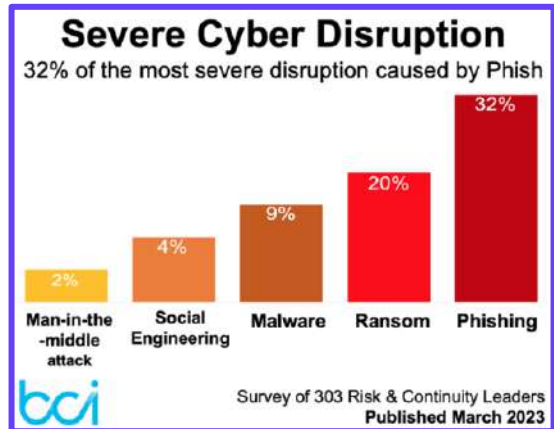
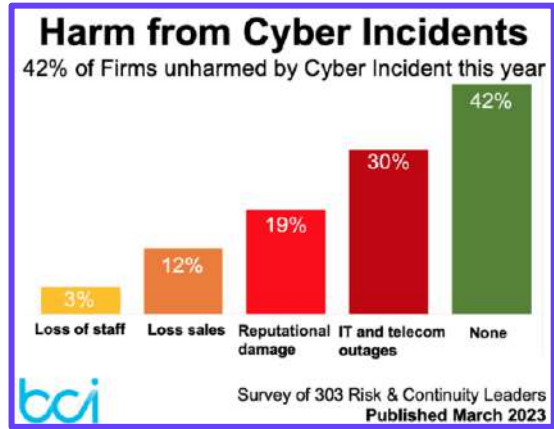
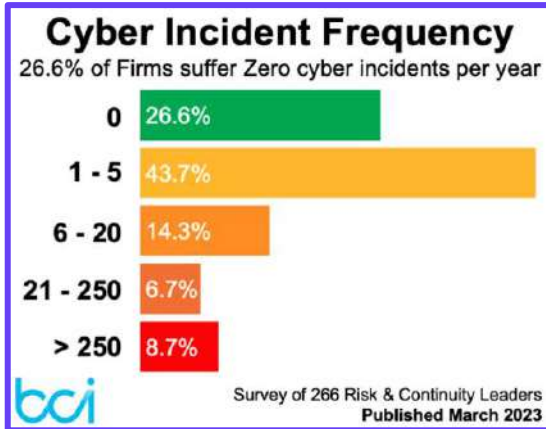
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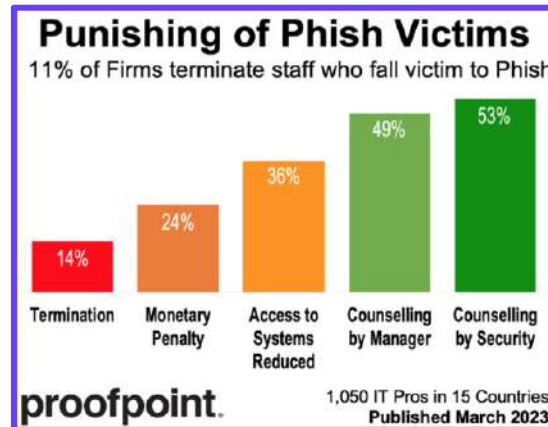
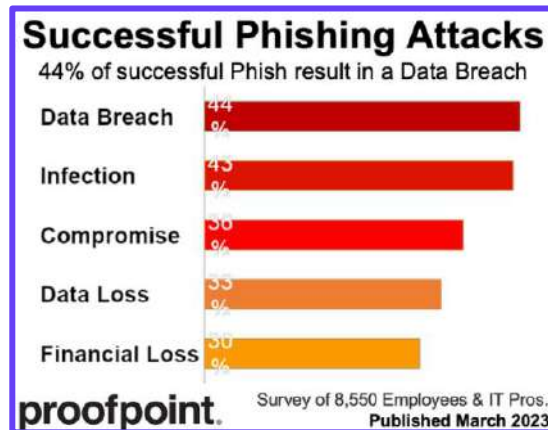
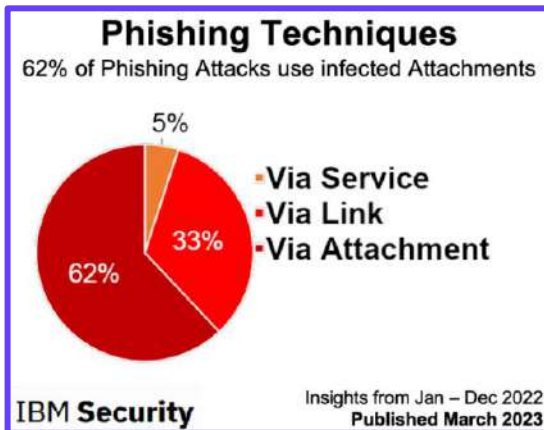
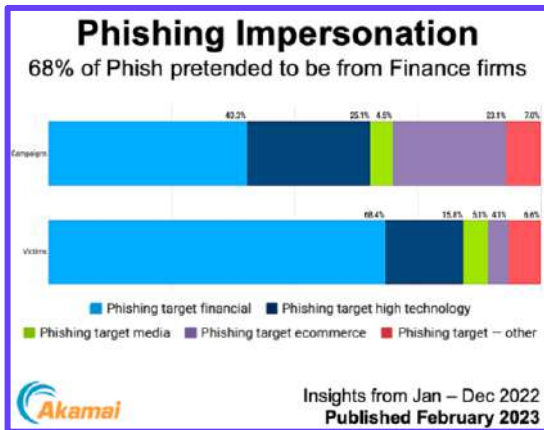
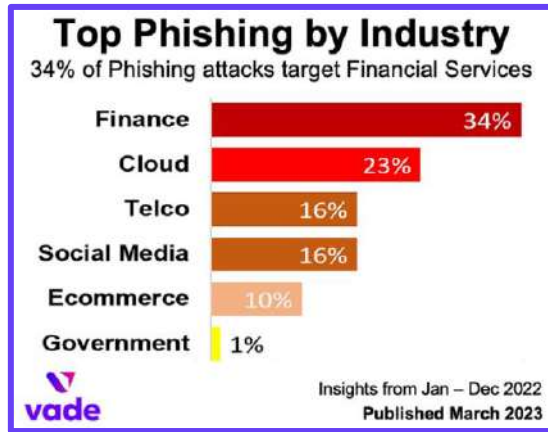
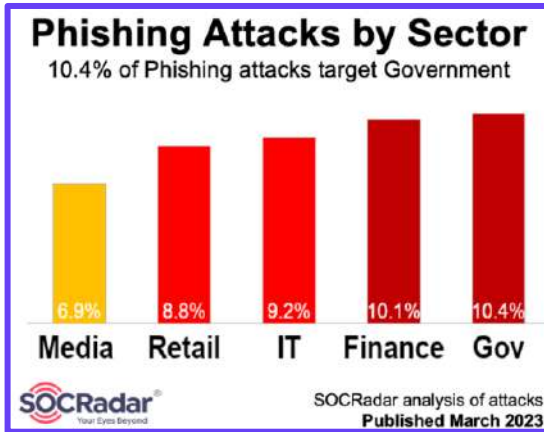
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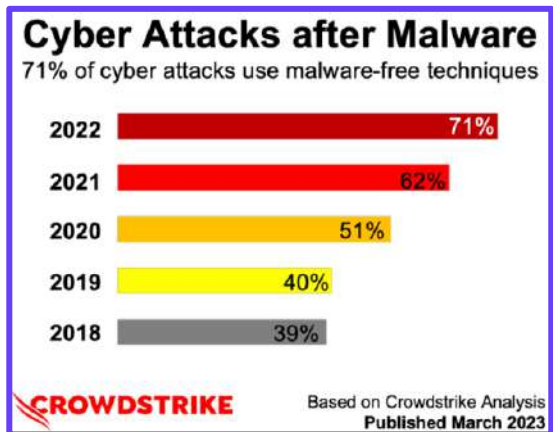
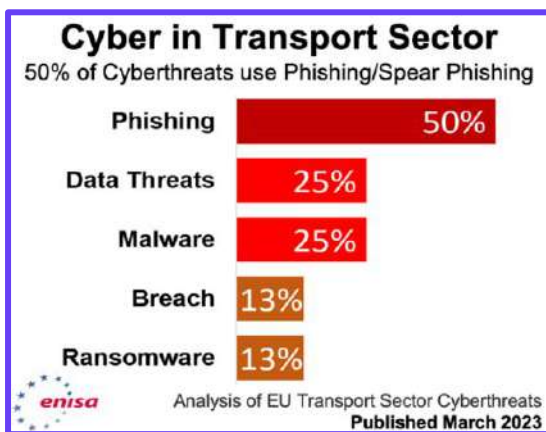
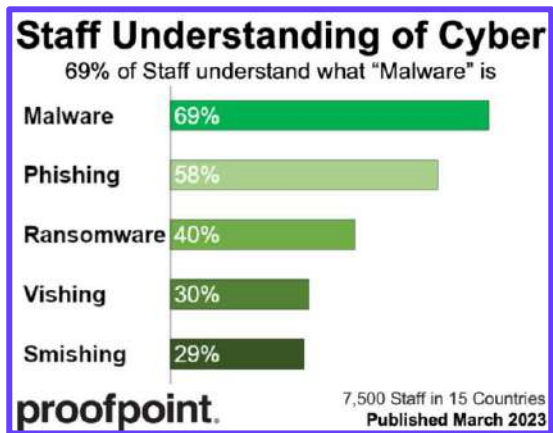
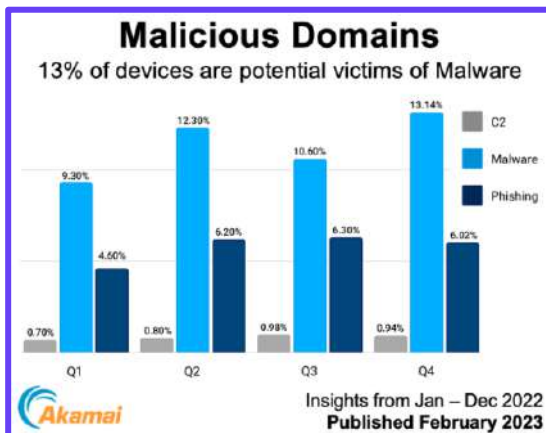
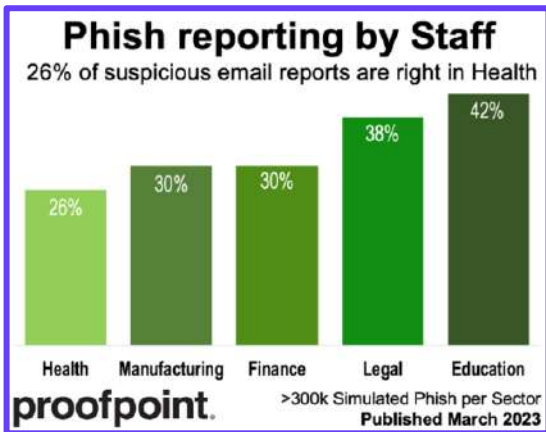
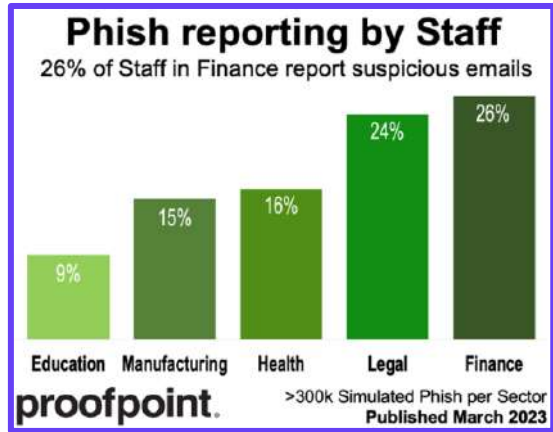
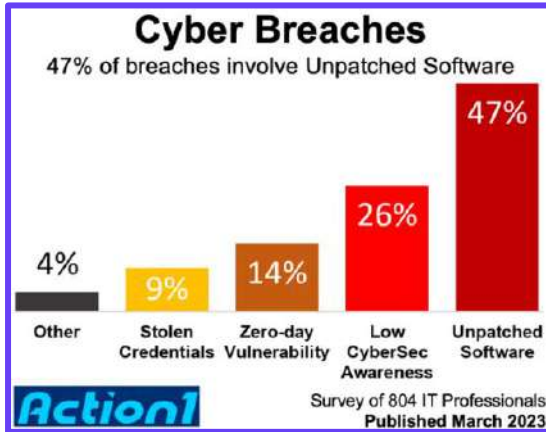
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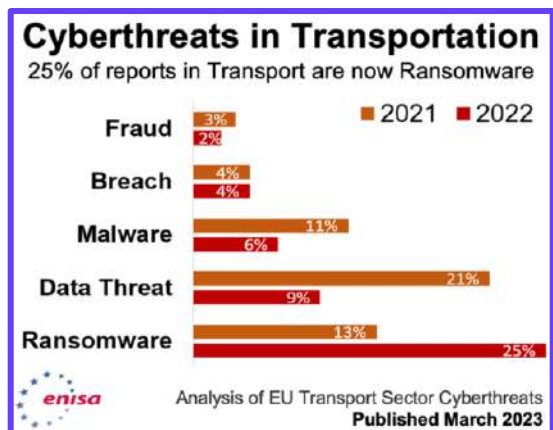
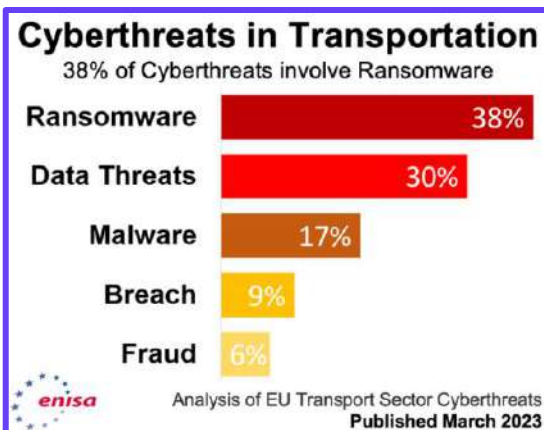
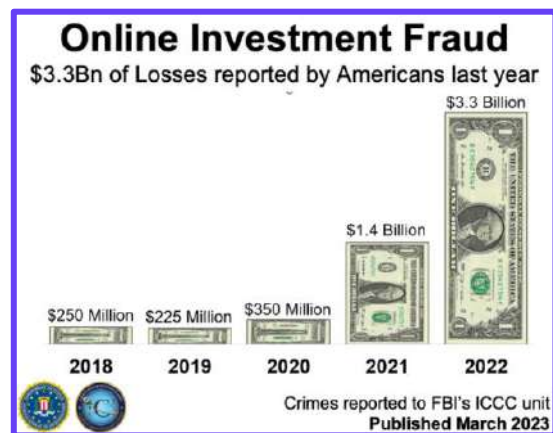
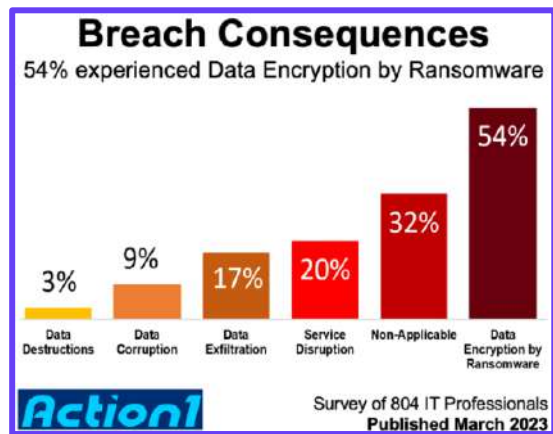
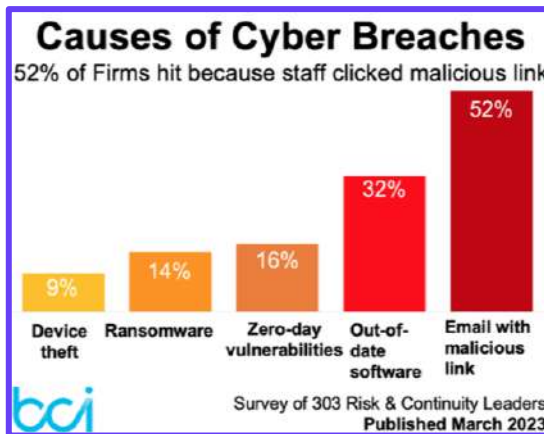
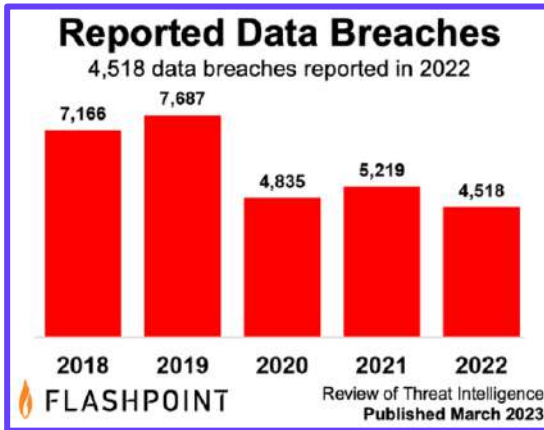
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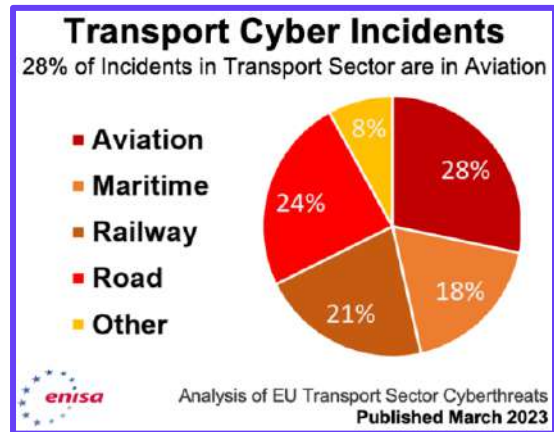
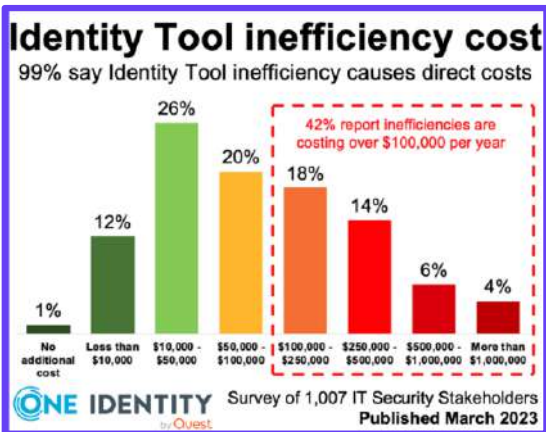
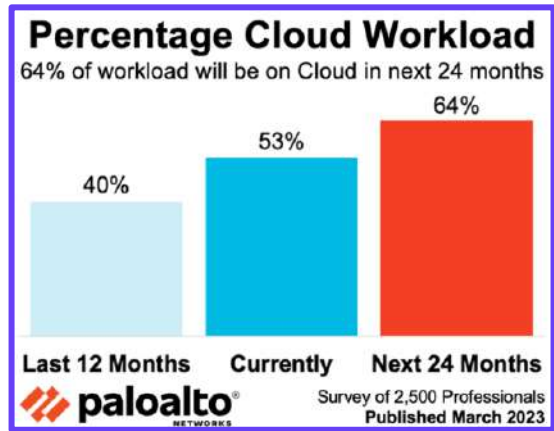
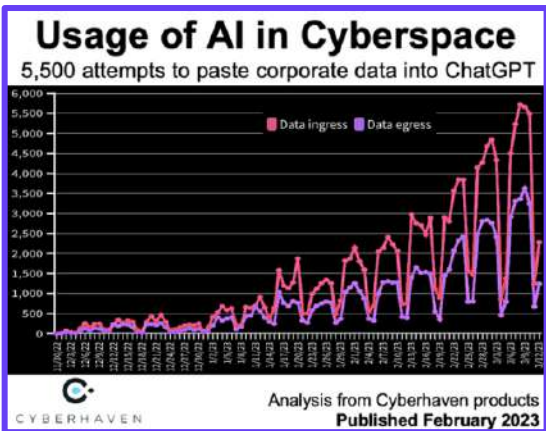
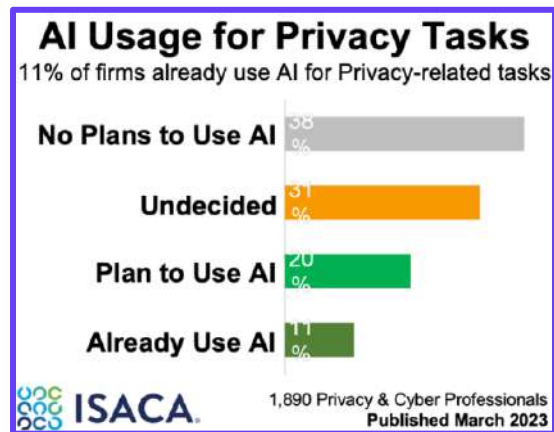
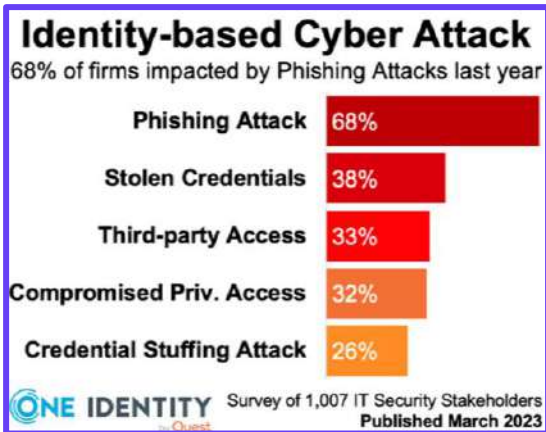
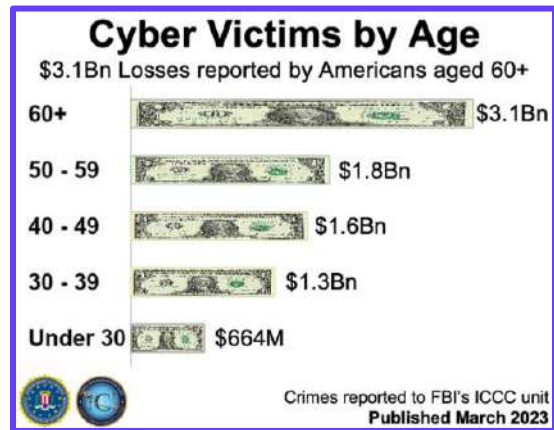
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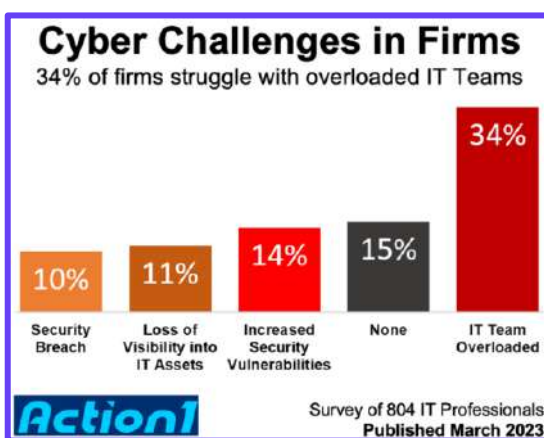
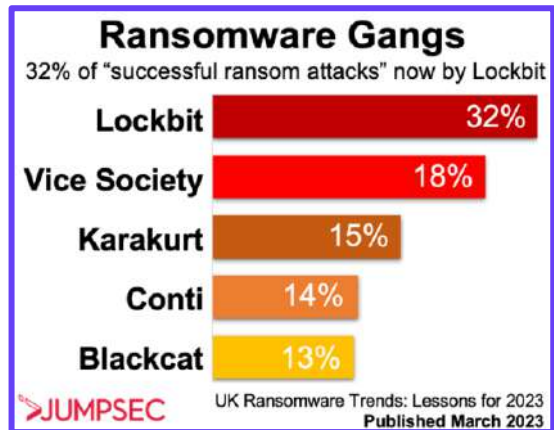
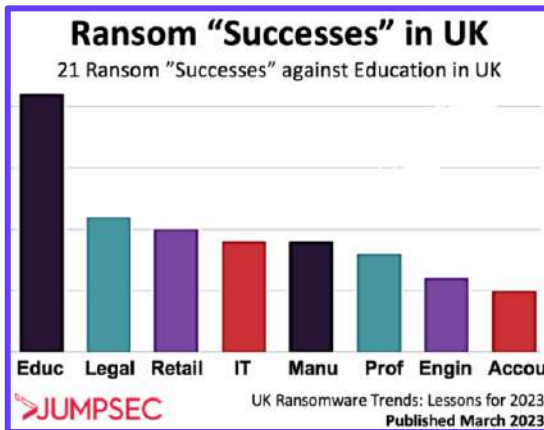
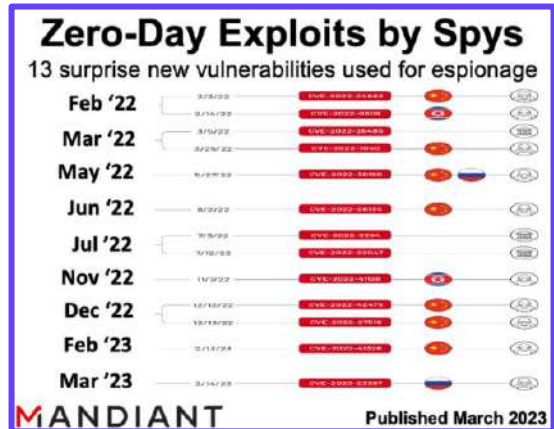
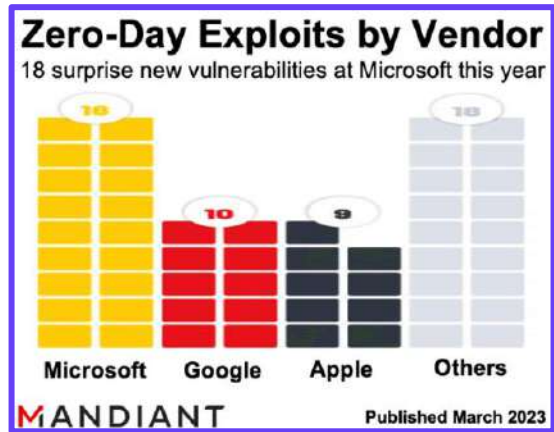
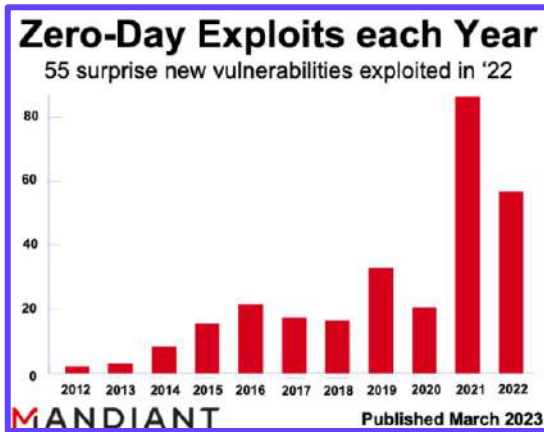
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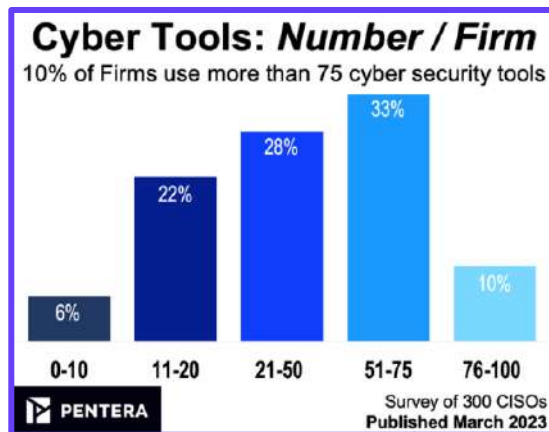
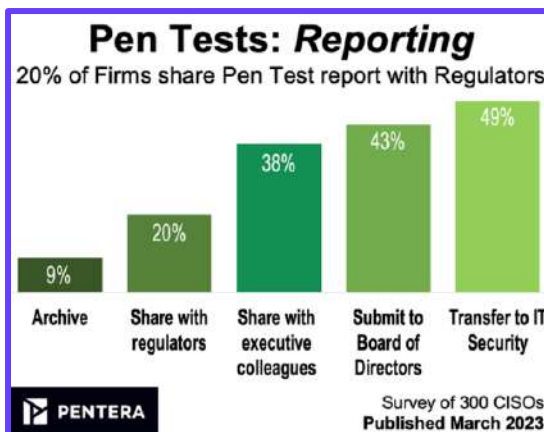
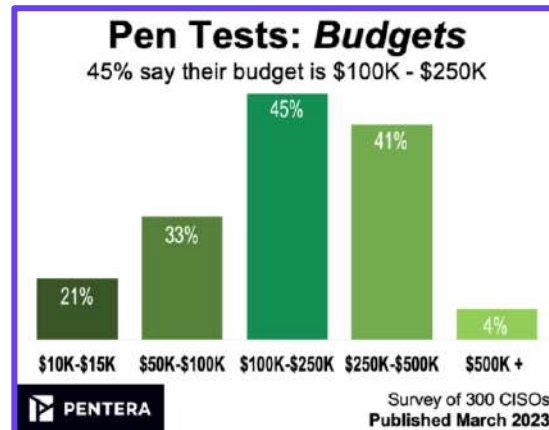
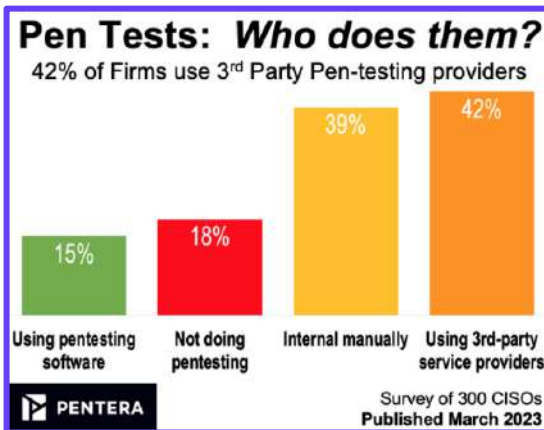
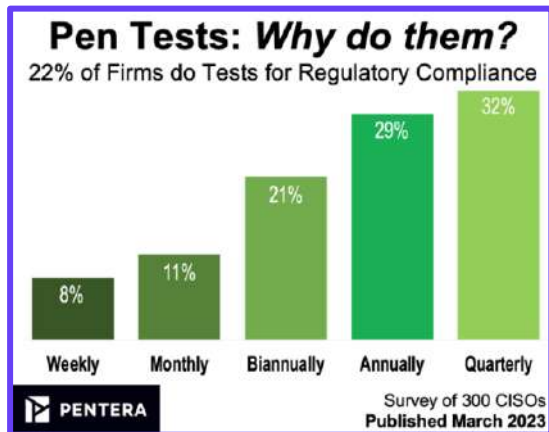
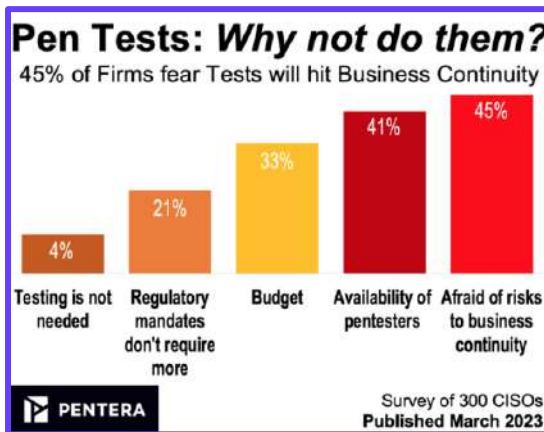
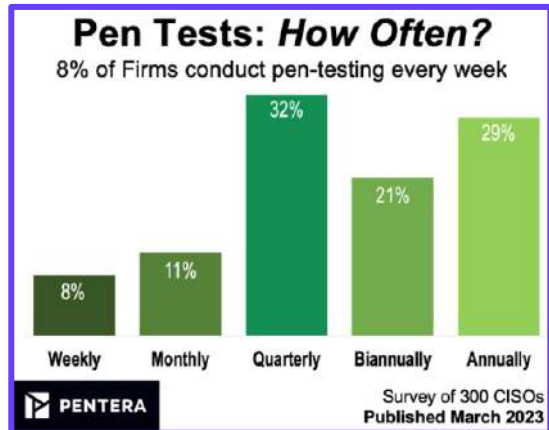
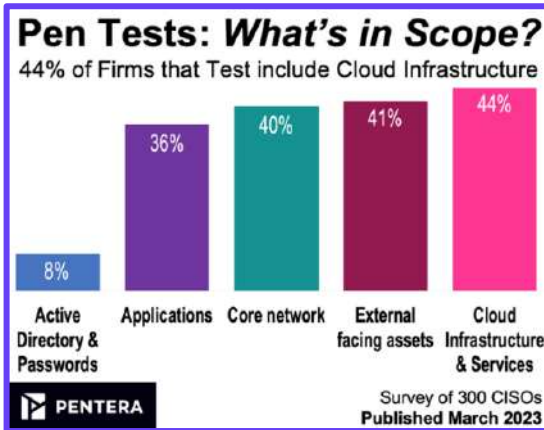
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Cyber Insights: *Rankings in Cyber*

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What Drive Growth of Cloud

Top 5 Reasons for Firms to Expand in the Cloud

- #1 = **Expanding** Products & Services
- #2 = Increasing **Efficiency & Agility**
- #3 = **Creating** new Processes & Workflows
- #4 = Mitigating Business & Regulatory **Risk**
- #5 = Expanding into **New Markets**



Survey of 2,500 Professionals
Published March 2023

Ensuring Cyber Resilience

Top 5 Practices by Firms to ensure Cyber Resilience

- #1 = Regularly back-up **Critical Data**
- #2 = **Comply** with good cyber practices
- #3 = Regularly **Patch** Software & Apps
- #4 = Regular **Penetration Testing**
- #5 = Align to Industry **Regulations**



Survey of 303 Risk & Continuity Leaders
Published March 2023

Cyber Security Incidents

Top 5 Cyber Security Incidents

- #1 = Early Risk in **App Development**
- #2 = Images with Vulnerabilities or **Malware**
- #3 = Vulnerable **Web Apps & APIs**
- #4 = **Unrestricted** Network Access
- #5 = Downtime due to **Misconfiguration**



Survey of 2,500 Professionals
Published March 2023

Cyber Response Planning

Top 5 ways Firms validate Cyber Response Plans

- #1 = Regularly **Conduct Exercises**
- #2 = Conduct **Penetration Tests**
- #3 = Run **awareness-raising** initiatives
- #4 = Outcome Reports & **Action Plans**
- #5 = Use External **Specialists**



Survey of 303 Risk & Continuity Leaders
Published March 2023

Finance Impersonation

PayPal most impersonated brand in Finance

- #1 = PayPal
- #2 = MTB
- #3 = Crédit Agricole
- #4 = La Banque Postale
- #5 = Wells Fargo



Insights from Jan – Dec 2022
Published March 2023

Key Cyber Security Metrics

Top 5 Key Cyber Security Metrics

- #1 = Mean Time to **Detect**
- #2 = Mean Time to **Remediate**
- #3 = Number of **Breaches**
- #4 = Number of **Intrusion Attempts**
- #5 = Unplanned **Downtime**



Survey of 2,500 Professionals
Published March 2023

Top Security Principles

Priorities from Australia's Cyber Security Center

- #1 = **Govern**, eg manage risks
- #2 = **Protect** eg create controls
- #3 = **Detect**
- #4 = **Respond**



Australian Information Security Manual
Published February 2023

Top 5 Myths in Ransomware

Debunking Five Ransomware Misconceptions

- #1 = **Sophisticated Hackers** to blame
- #2 = **Large firms** are most targeted
- #3 = **Contagion** always spreads
- #4 = **Paying guarantees** data restored
- #5 = **Antivirus** stops all Ransomware



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Cyber Insights: *Cyber Strategies*

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USA's New Cyber Strategy

Joe Biden announced **five pillars** in 39 page doc

- #1 = Defend Critical Infrastructure
- #2 = Disrupt & Dismantle Threat Actors
- #3 = Shape Market to Drive Security
- #4 = Invest in a Resilient Future
- #5 = Forge International Partnerships

39 Page Document, with 27 Strategic Objectives
Published March 2023

New Governance Framework

For current EU member states

Published Feb '23

National Cyber Strategy for the UK

Published Feb 2023

Cyber Risk Management by the Saudi Arabia Government

Published March '23

InfoSec Manual

Cybersecurity Manual for Australia

Published March '23

Vulnerability Intelligence Report

Published Mar '23

Cybercrime Trends

Latest threats & security practices

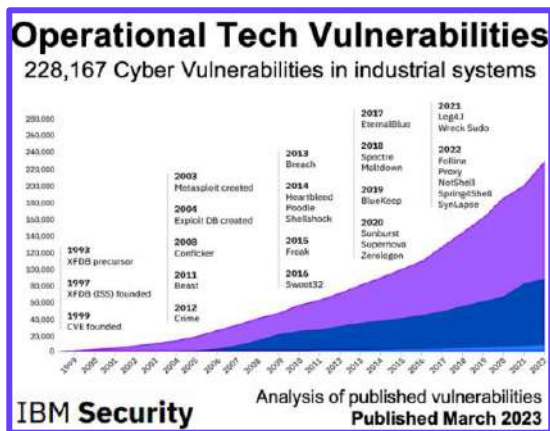
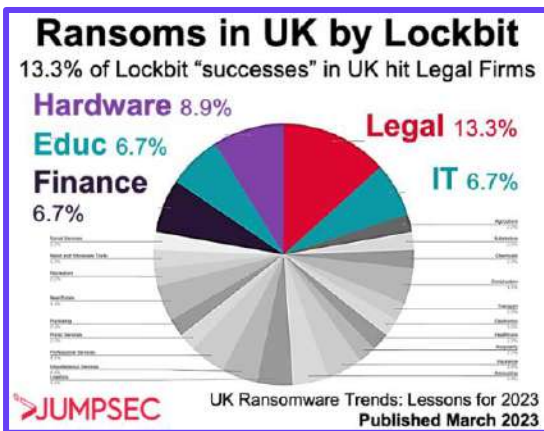
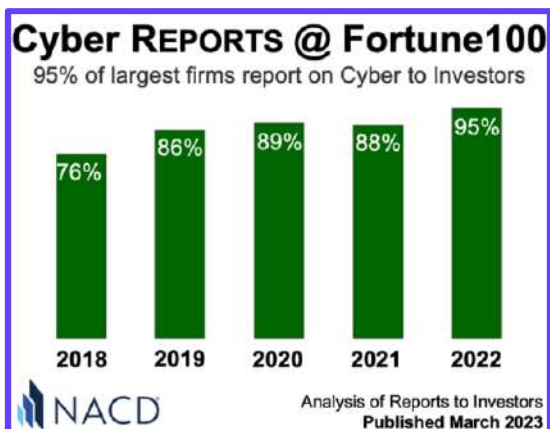
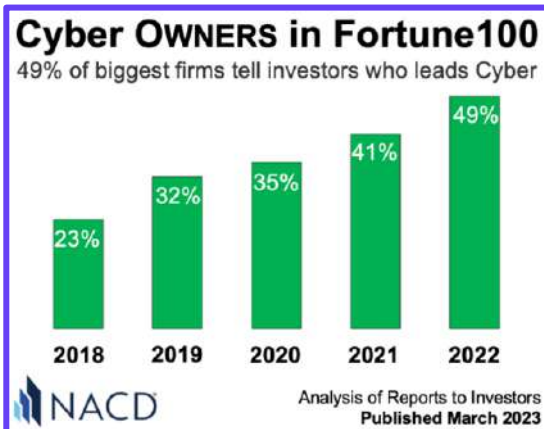
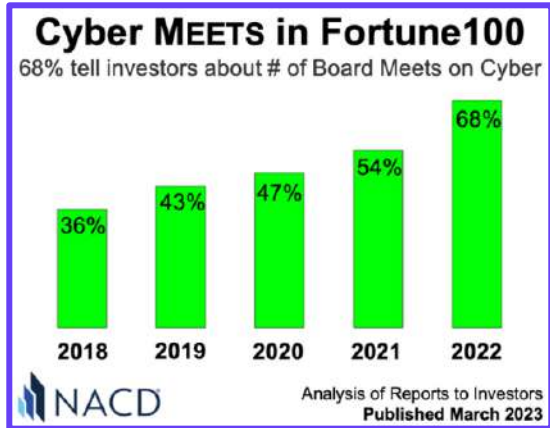
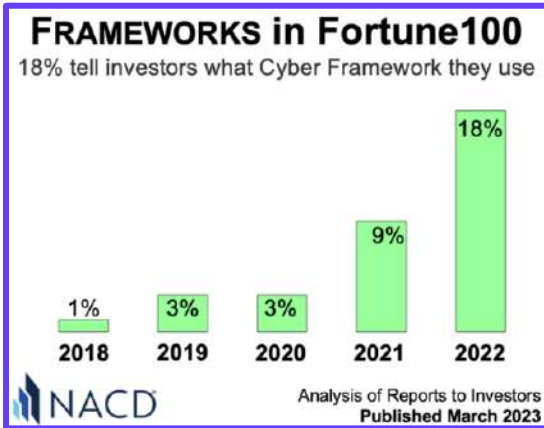
Published March '23

New Cyber Tools for Protecting Data and Privacy

Published March '23

Cyber Insights: *Reporting on Cyber*

Click each image to see each report in full. All were published in month to April 2023



Recorded Future Annual Report

Published March 2023

2022 Annual Report

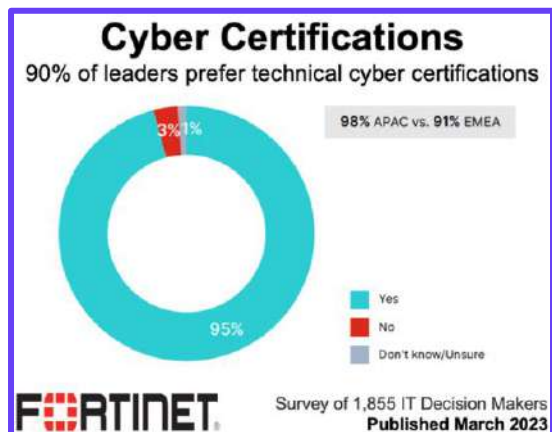
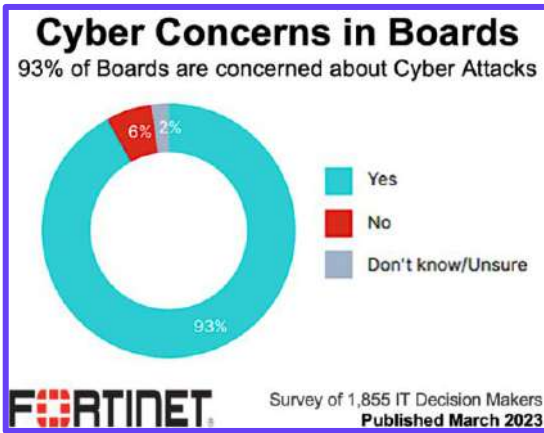
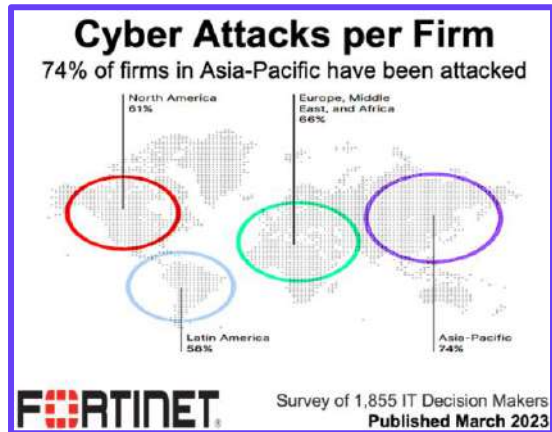
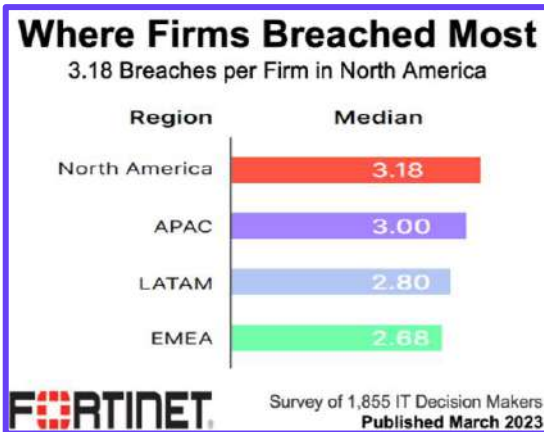
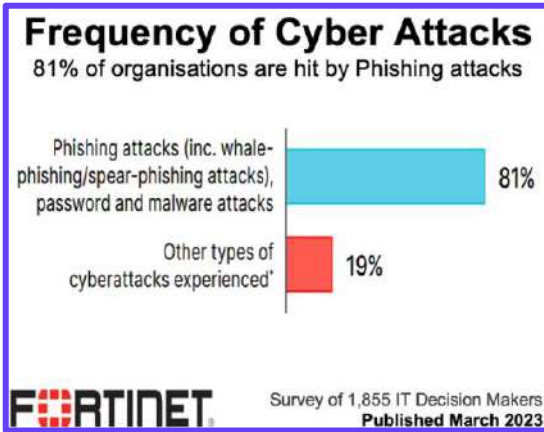
Top Risks in Cybersecurity in 2023

Published Feb '23

Top Risks in Cybersecurity 2023

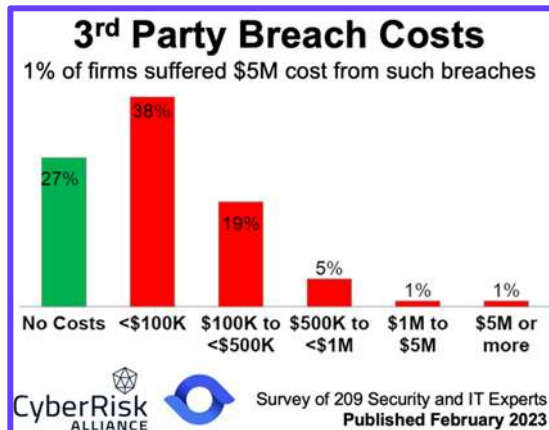
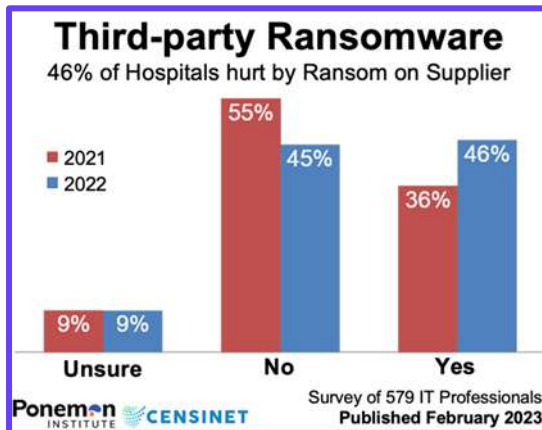
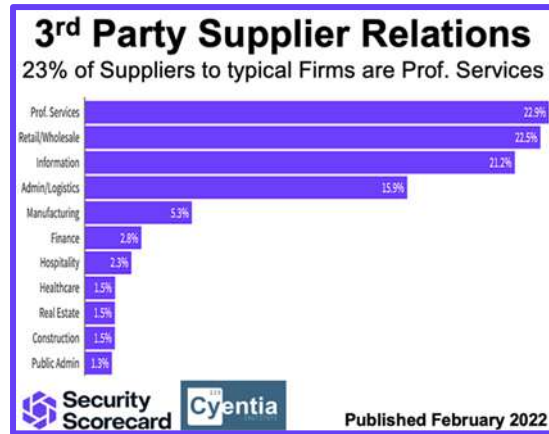
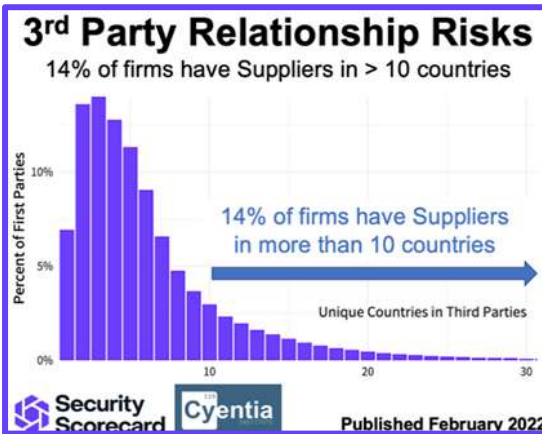
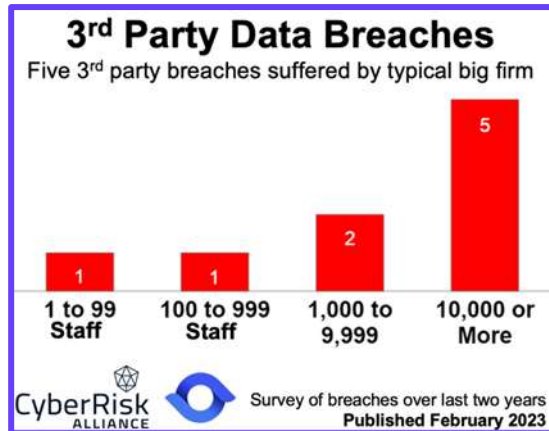
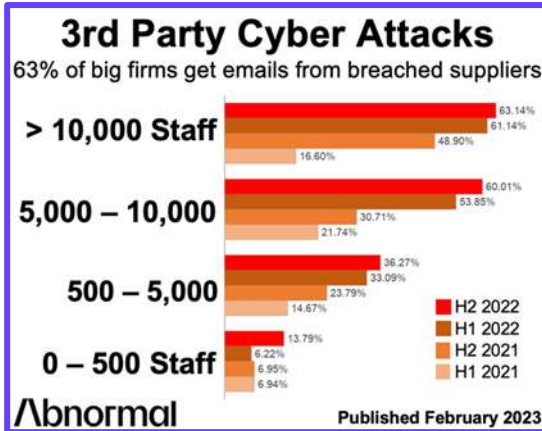
Cyber Insights: *Cyber Skills Gap*

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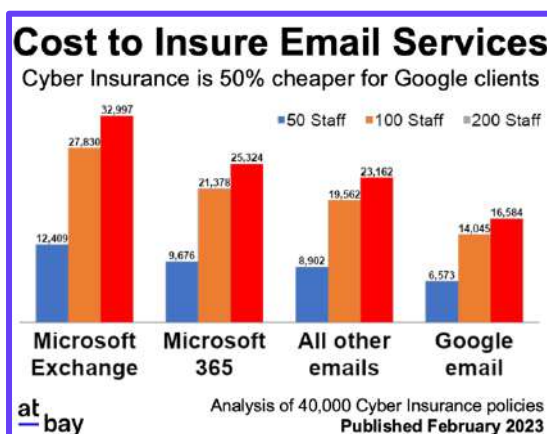
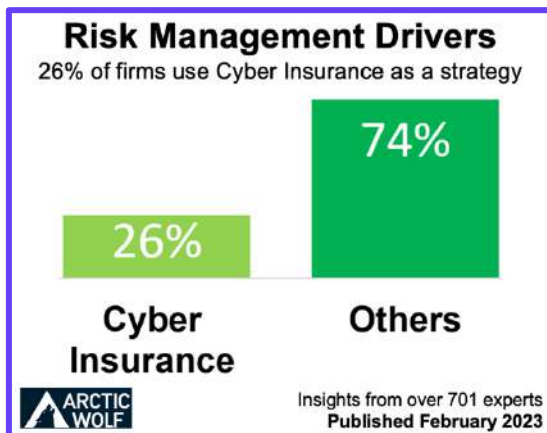
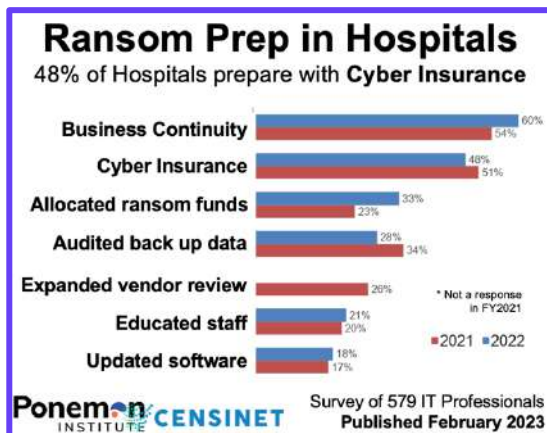
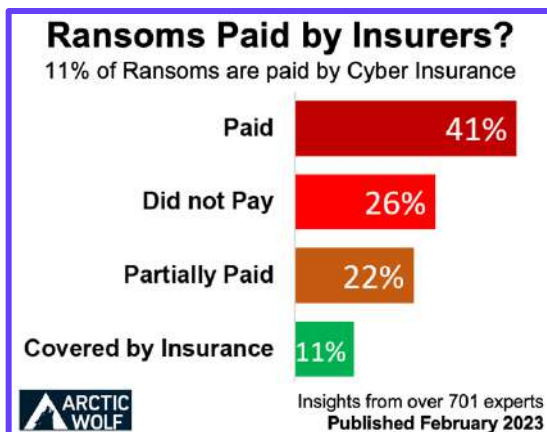
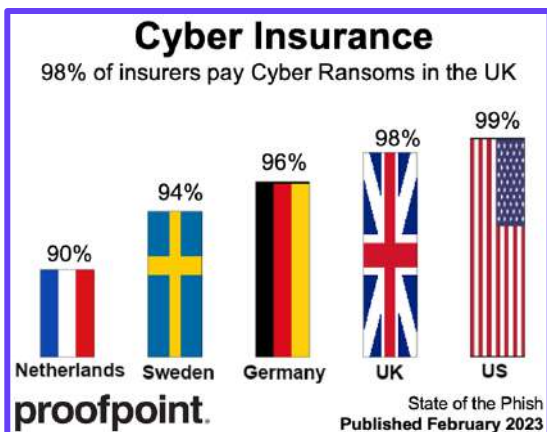
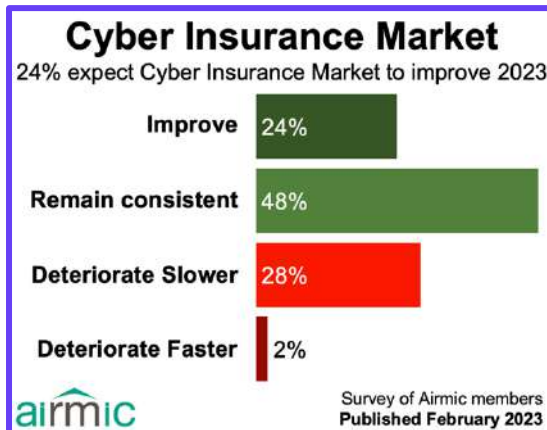
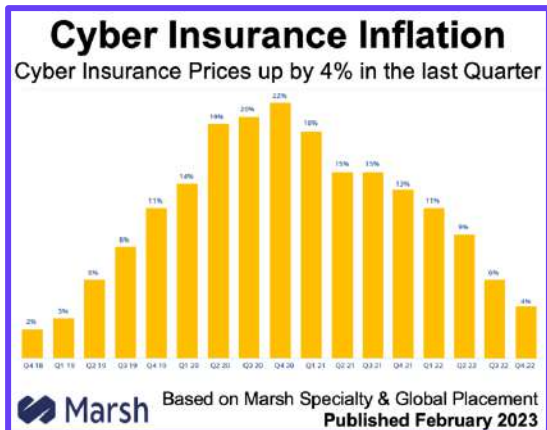
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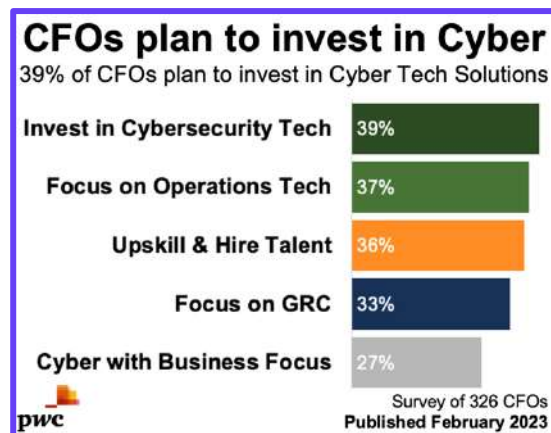
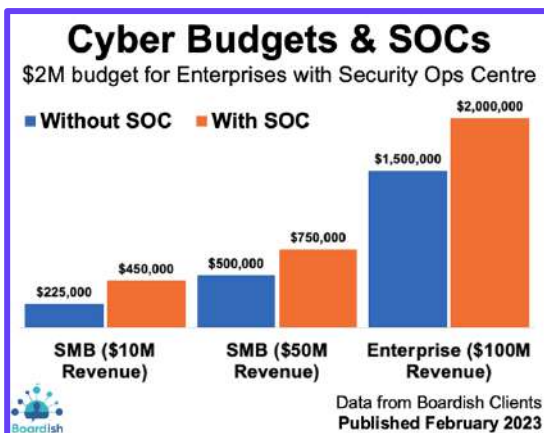
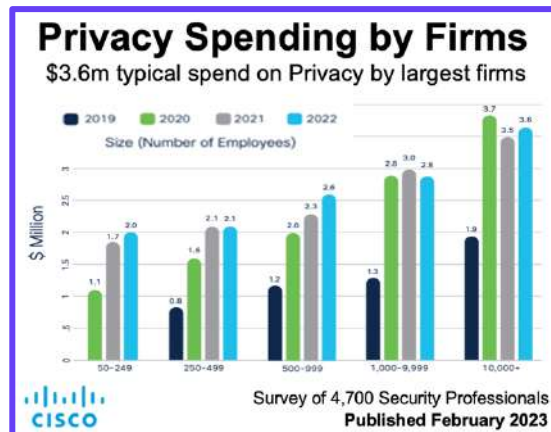
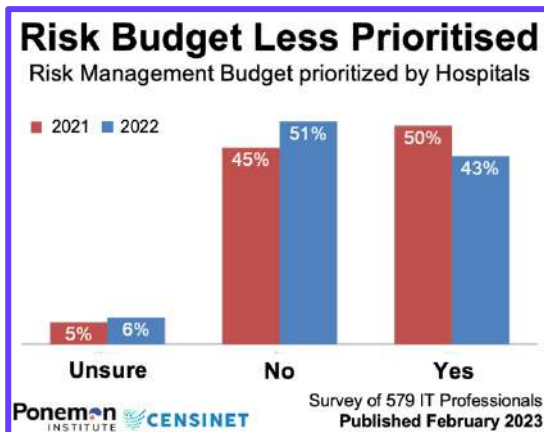
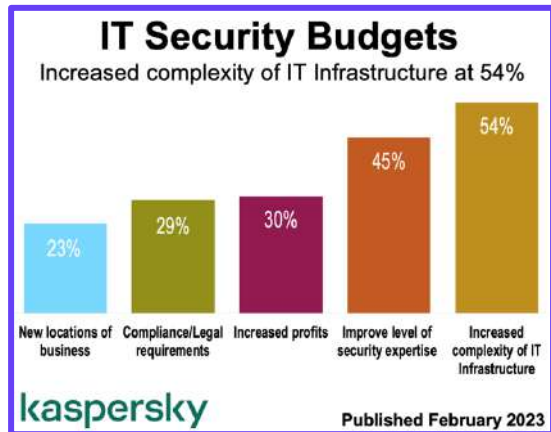
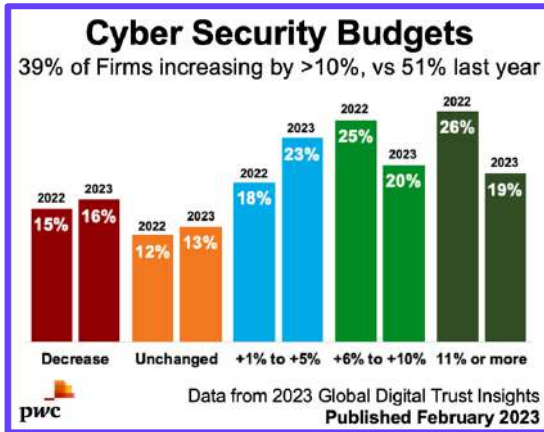
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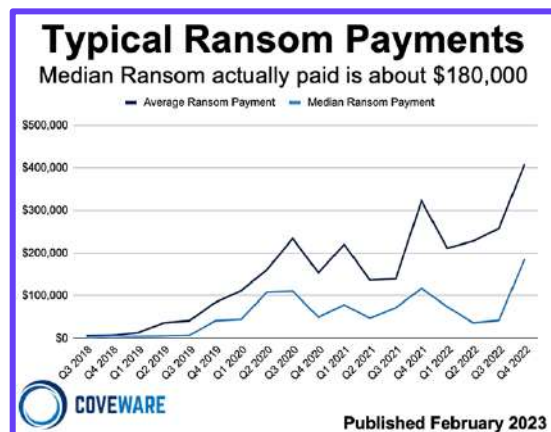


Cyber Budgeting Problems

Legacy Budgets make it hard to budget well for future

- #1 = Legacy Budget Structures
- #2 = Lack of Verification
if expense tracking done internally
- #3 = Lack of Visibility on Resources

Data from Boardish Clients
Published February 2023



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Ransom Payments Escalate

Size of each known payment +58% from Q3/22



Average (Mean) Known Payout =

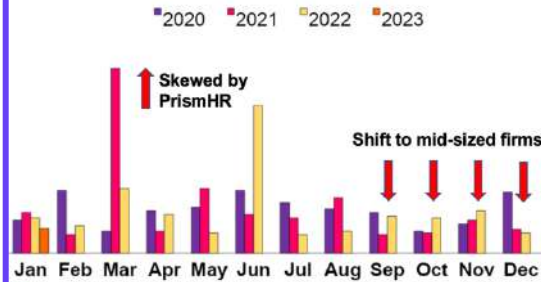
USD \$408,644



Published February 2023

Size of Ransom Victims


Ransom Gangs keep targeting smaller sized firms



2020 2021 2022 2023

Skewed by PrismHR

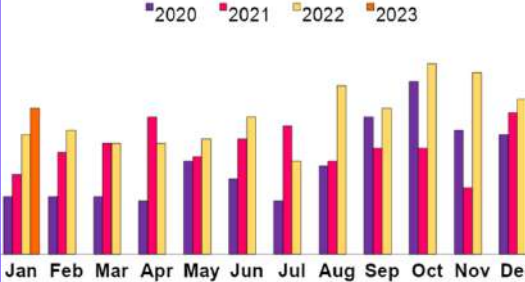
Shift to mid-sized firms




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of "Successful" Ransoms

The highest number of attacks in January on record



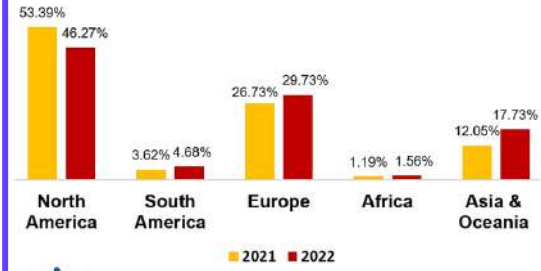
2020 2021 2022 2023




Published February 2023

Ransom Attacks by Region

46% of Ransom attacks observed in North America



Region	2021	2022
North America	53.39%	46.27%
South America	3.62%	4.68%
Europe	26.73%	29.73%
Africa	1.19%	1.56%
Asia & Oceania	12.05%	17.73%

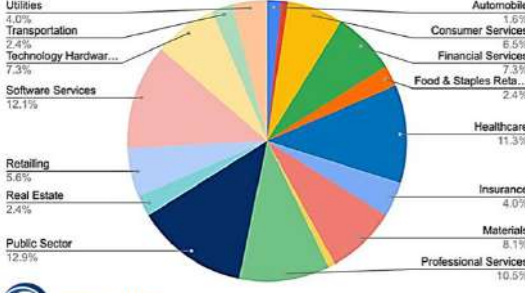


Extracted Attacks from the Dark Web analysis


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Ransom Attacks by Sector

Public Sector organizations hit most frequently



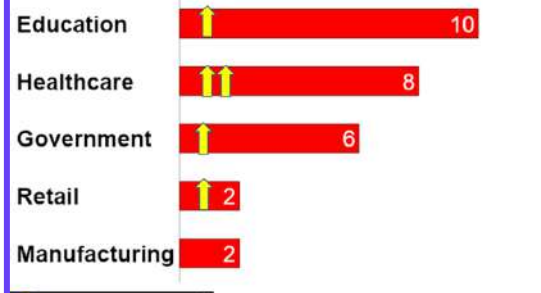
Sector	Percentage
Utilities	2.0%
Transportation	2.4%
Technology Hardware...	7.3%
Software Services	12.1%
Retailing	3.6%
Real Estate	2.4%
Public Sector	12.9%
Automobile	1.6%
Consumer Services	6.5%
Financial Services	7.3%
Food & Staples Rela...	2.4%
Healthcare	11.3%
Insurance	4.0%
Materials	8.1%
Professional Services	10.5%




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Ransom Victims by Sector

Education records the most incidents this month



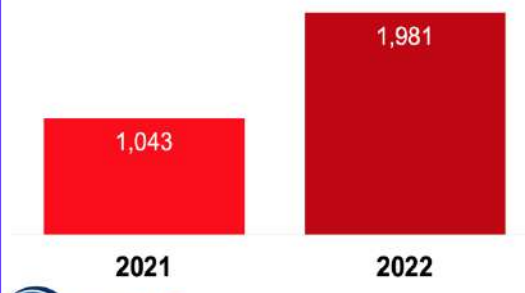
Sector	Number of Incidents
Education	10
Healthcare	8
Government	6
Retail	2
Manufacturing	2




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Ransomware Impact

Increase in ransomware for Education in 2022



Year	Number of Incidents
2021	1,043
2022	1,981




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Top Ransomware Variants

Hive is now the most common ransom variant

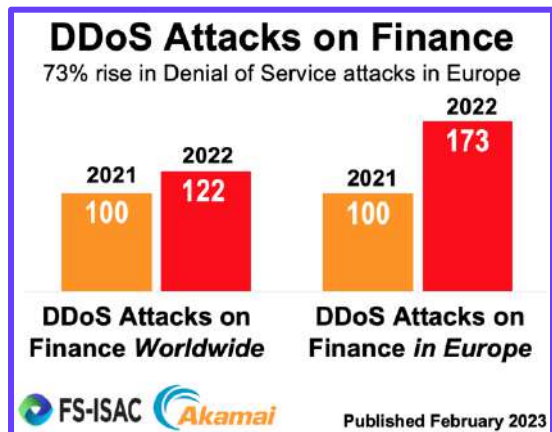
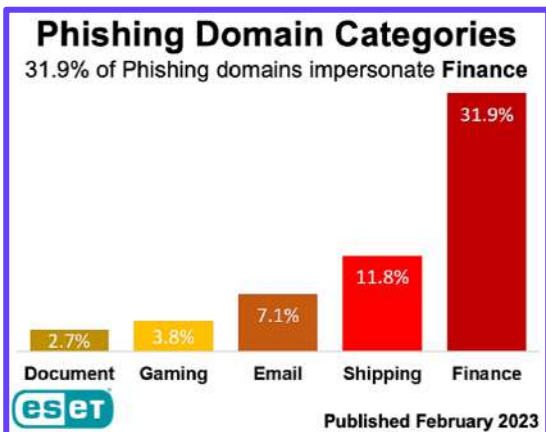
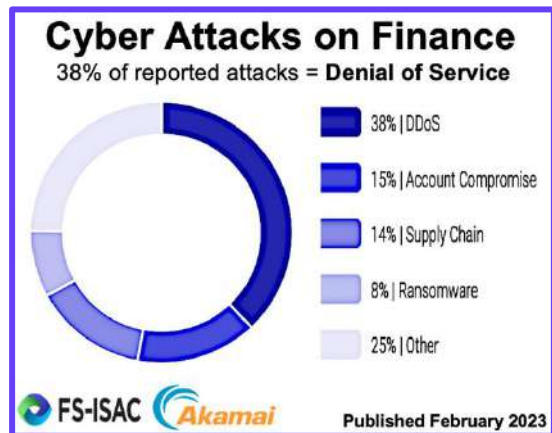
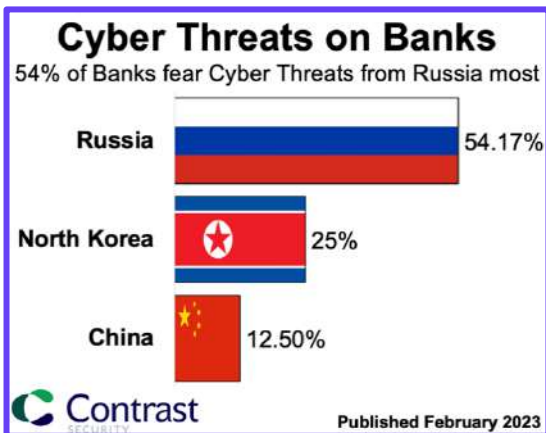
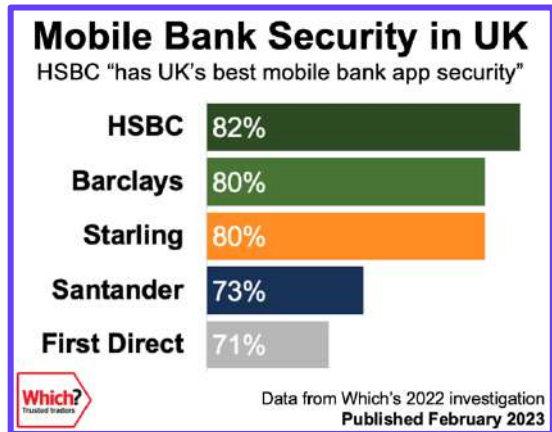
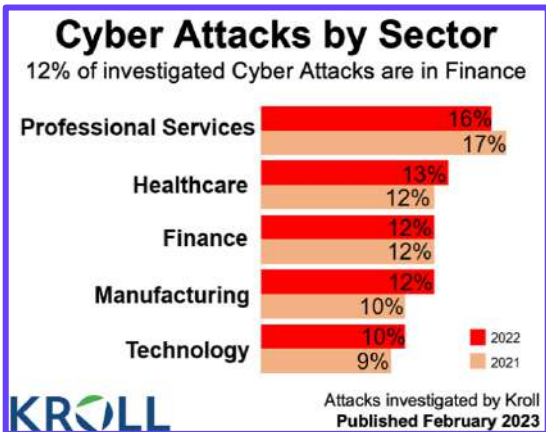
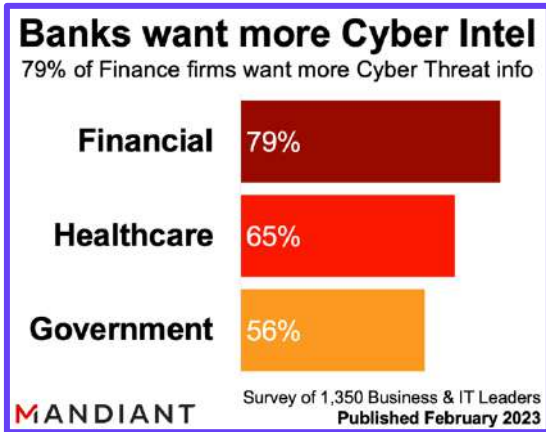
Rank	Ransomware Type	Market Share %
1	Hive	13.8%
2	Black Basta	12.2%
3	BlackCat	10.6%
4	Royal	8.9%
5	Phobos	6.5%
6	Quantum	4.8%
7	Diavol	3.2%
7	Lockbit 3.0	3.2%



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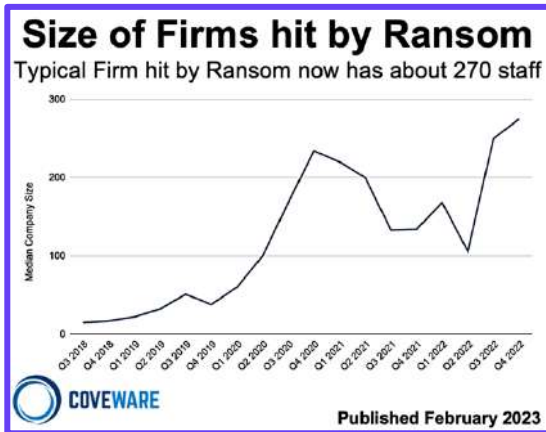
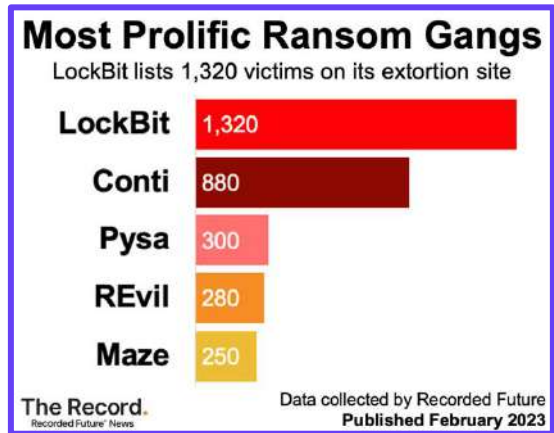
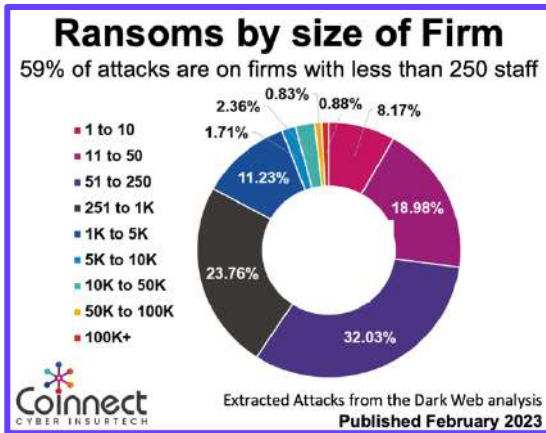
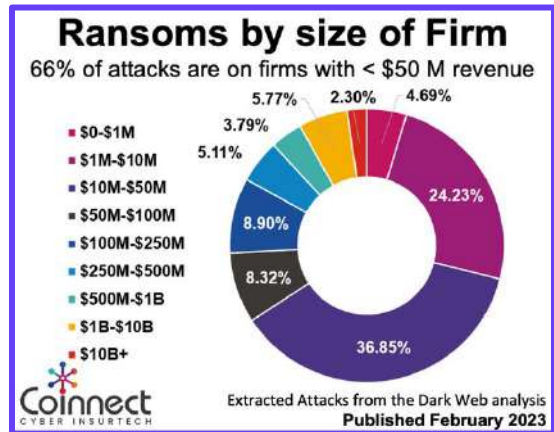
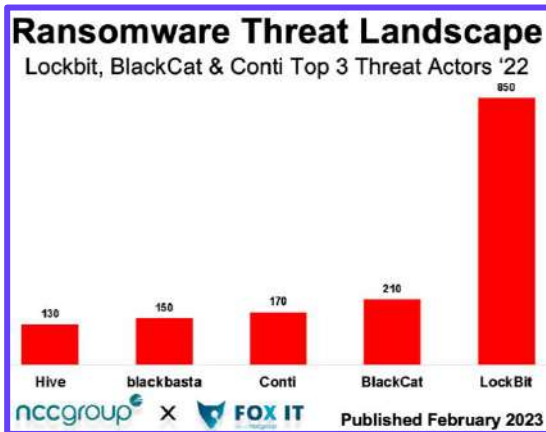
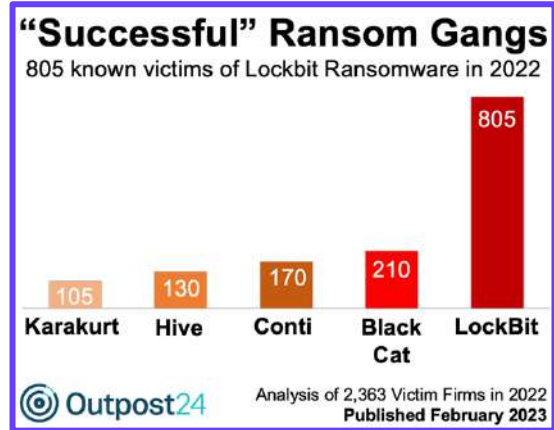
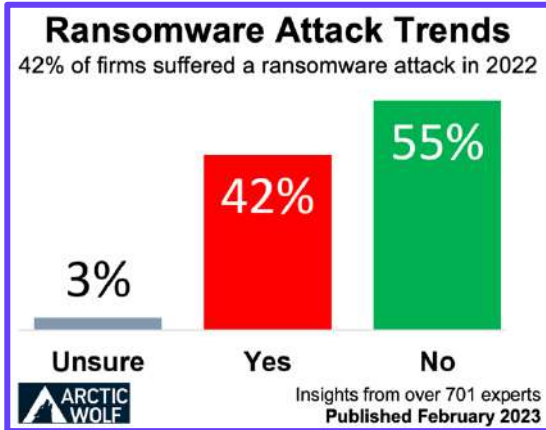
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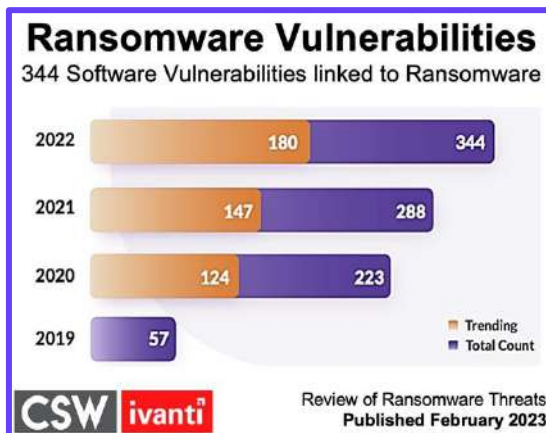
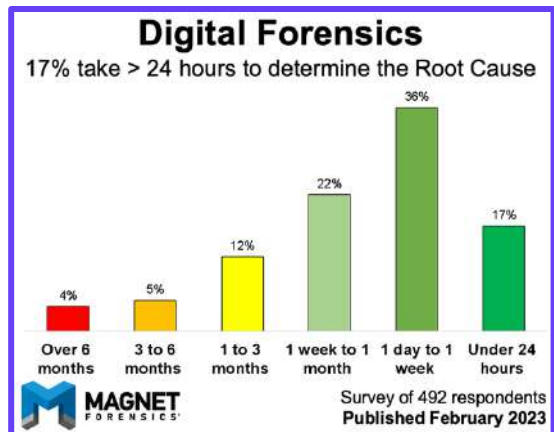
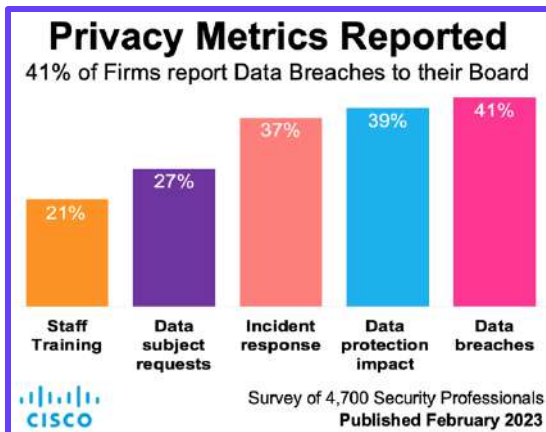
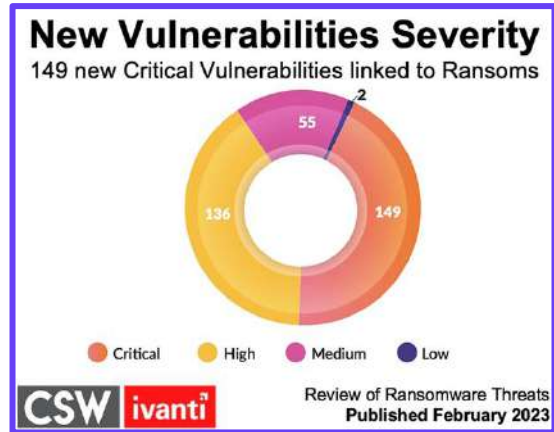
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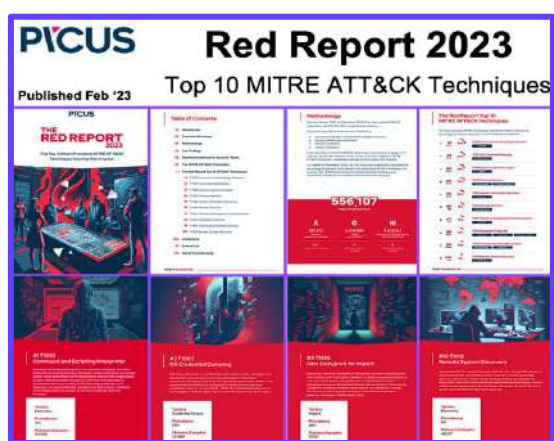
Ransomware Vulnerabilities

24 new Microsoft issues linked to Ransomware

Vendor Name	Count of Vulnerability Associated with Ransomware
Microsoft	24
SonicWall	5
VMWare	3
Red Hat	3
QNAP	3

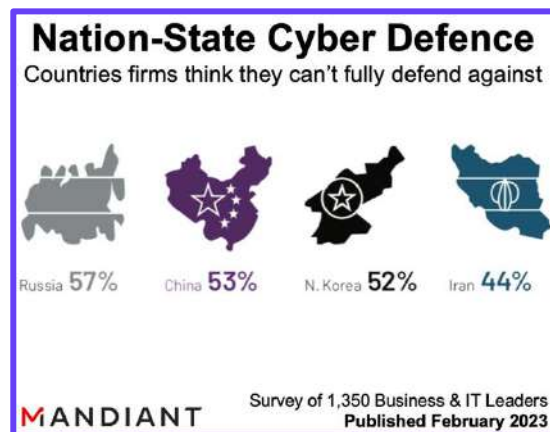
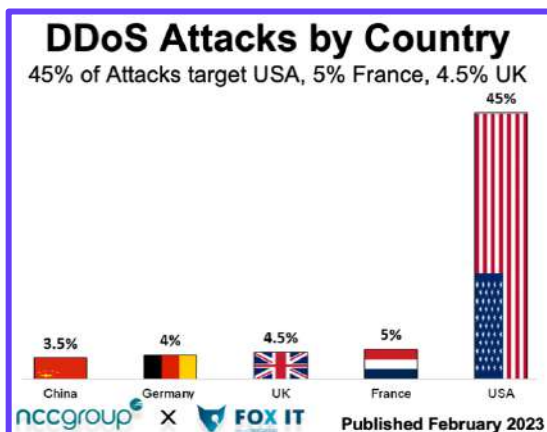
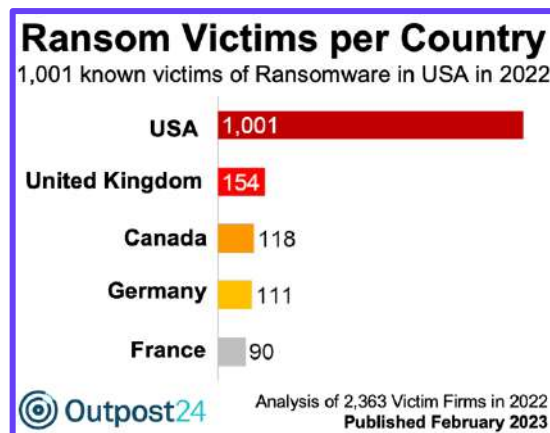
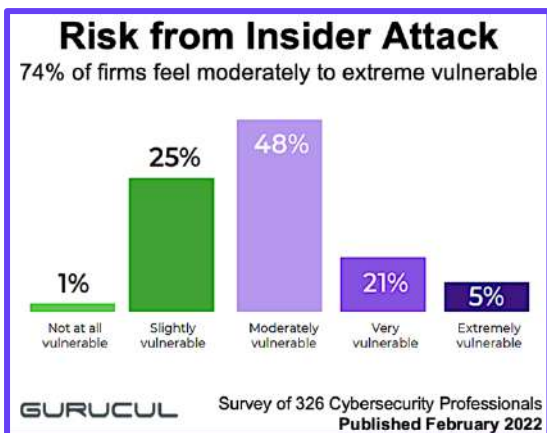
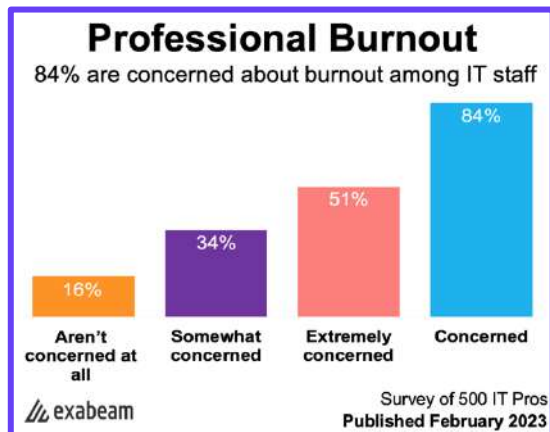
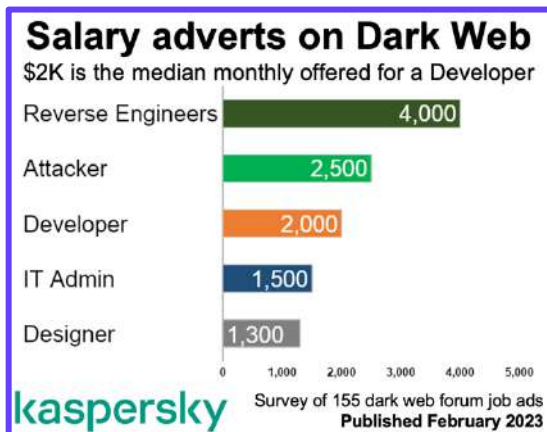
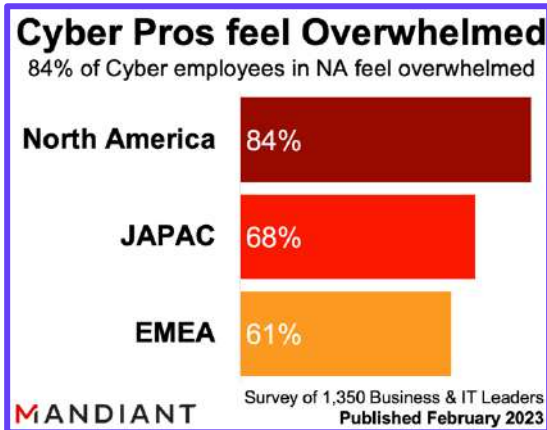
CSW | ivanti | Review of Ransomware Threats | Published February 2023

- ### Cyber Troubling Healthcare
- Top 5 Cyber Challenges Faced by Healthcare
- #1 = Vulnerability of Legacy Systems
 - #2 = Data Breaches
 - #3 = Insecure Devices & Equipment
 - #4 = Ransomware & Malware
 - #5 = Distributed Denial of Service
- CHECK POINT | Published February 2023



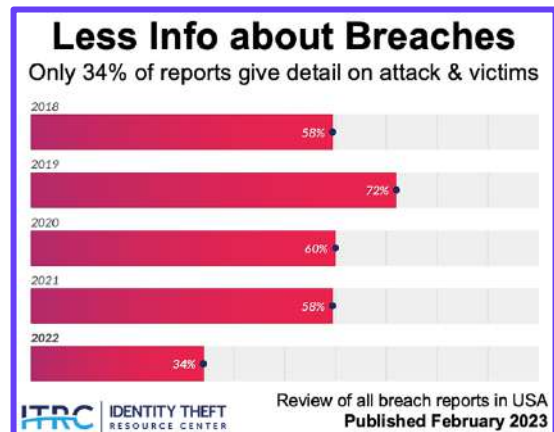
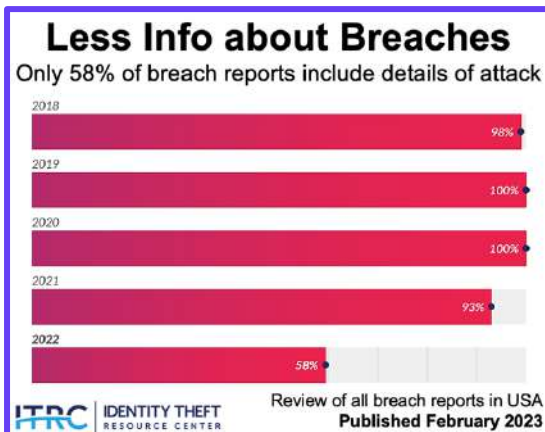
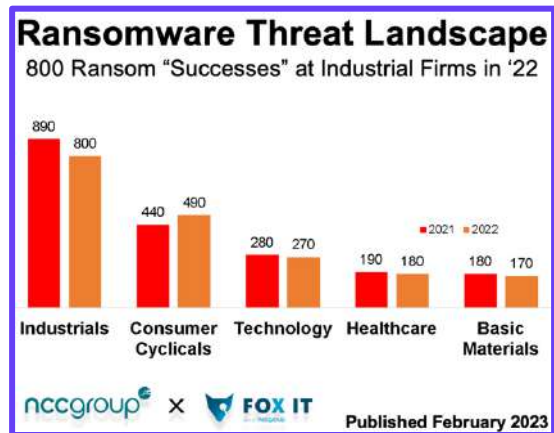
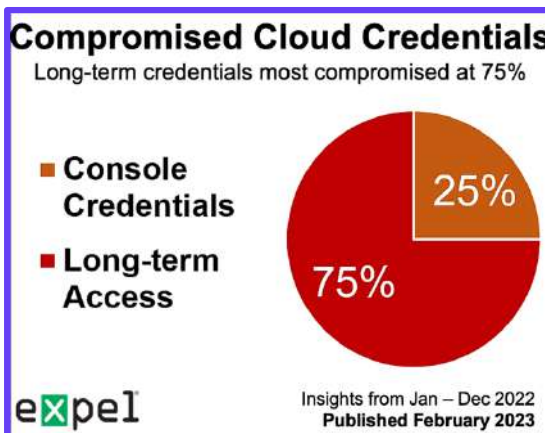
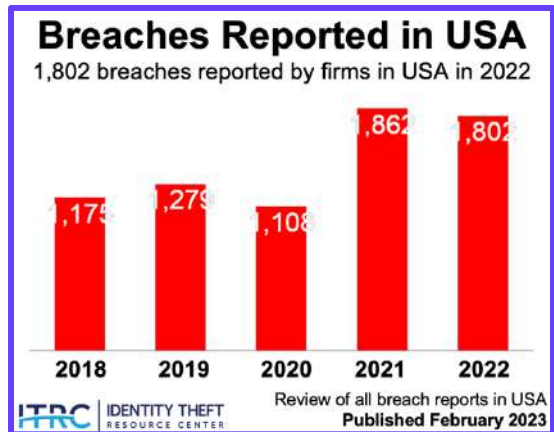
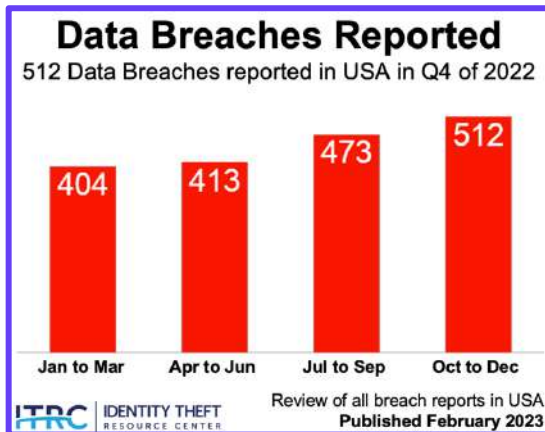
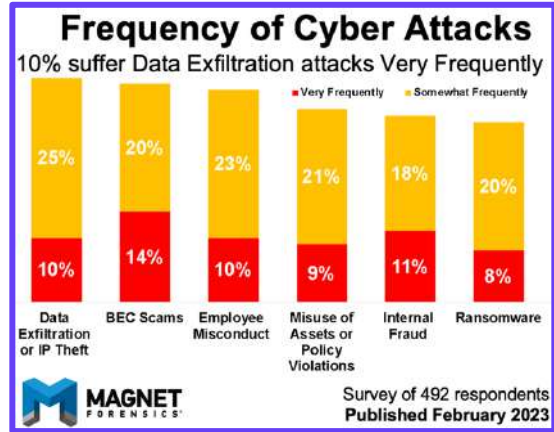
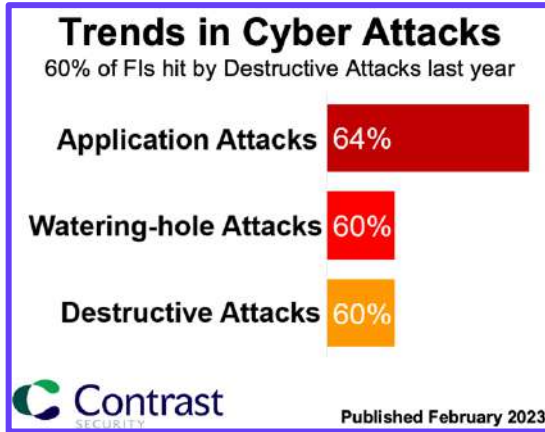
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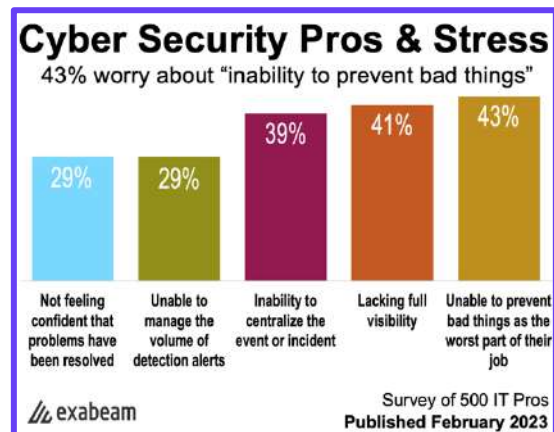
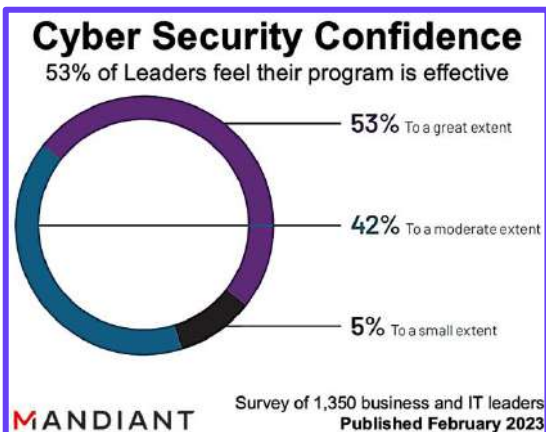
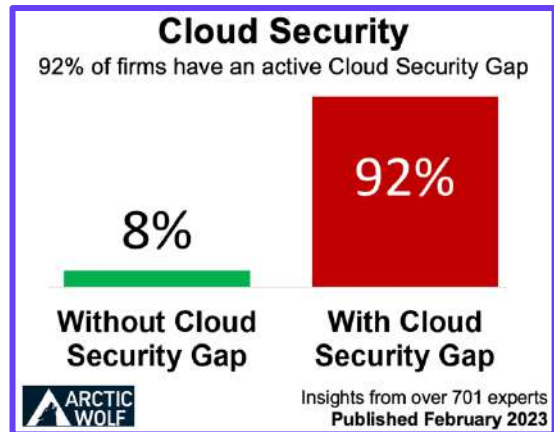
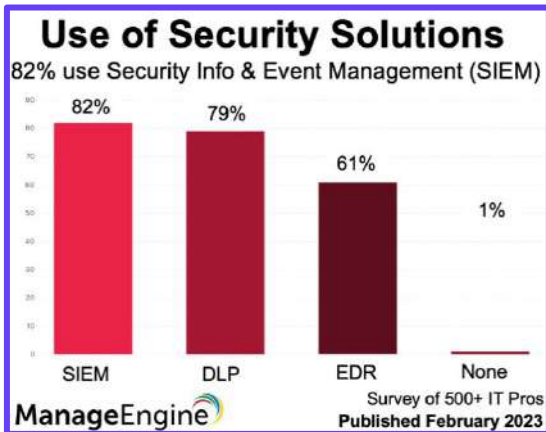
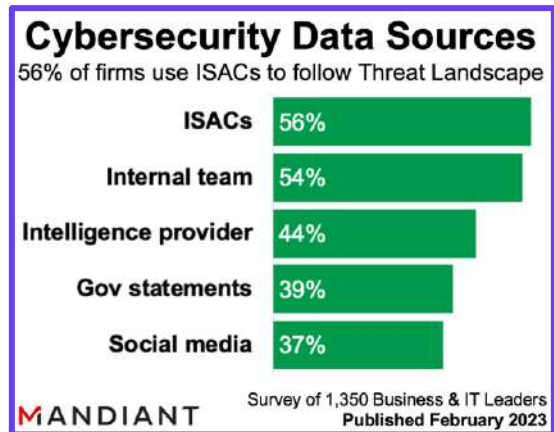
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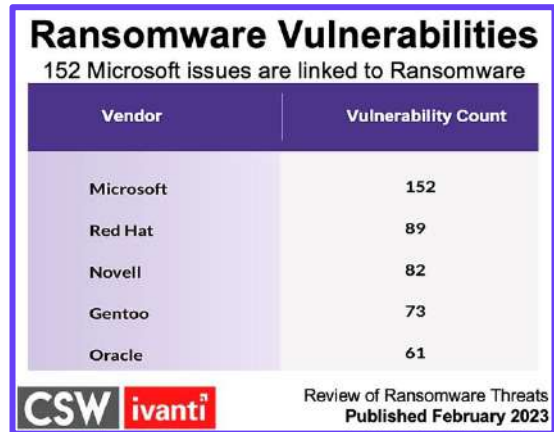
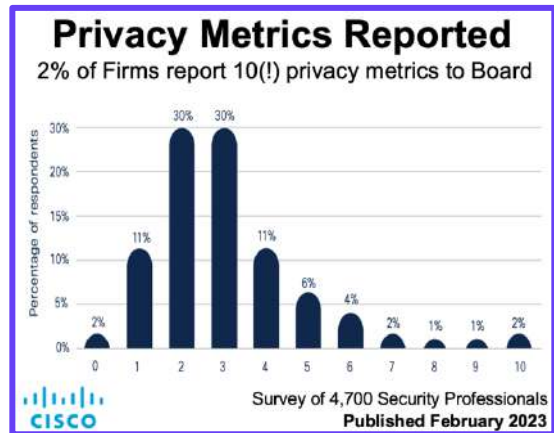
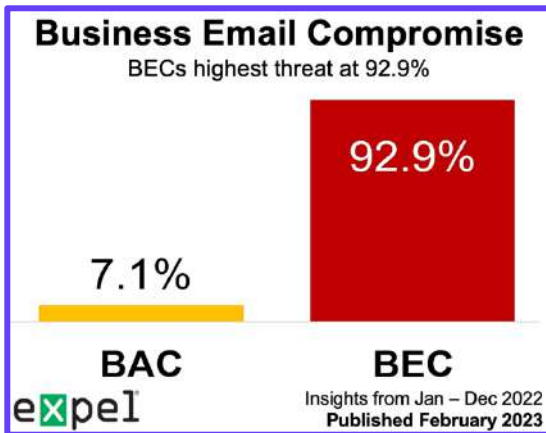
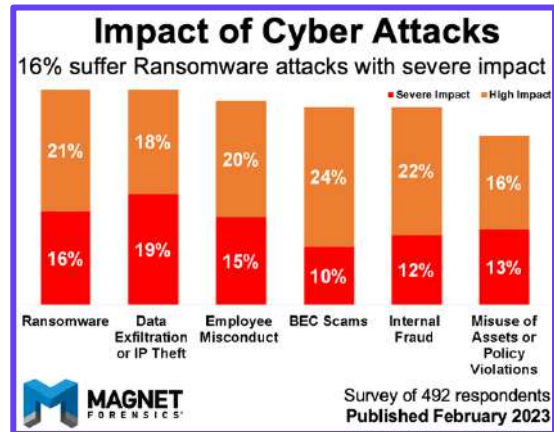
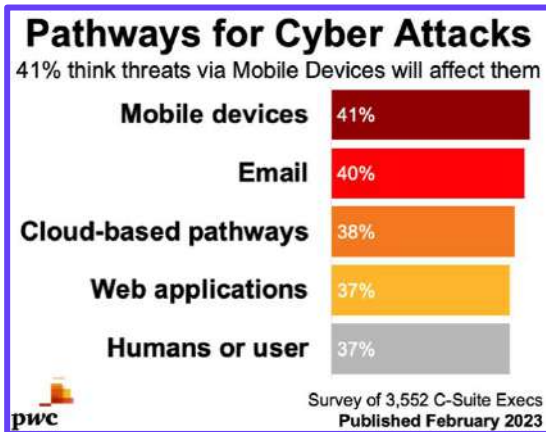
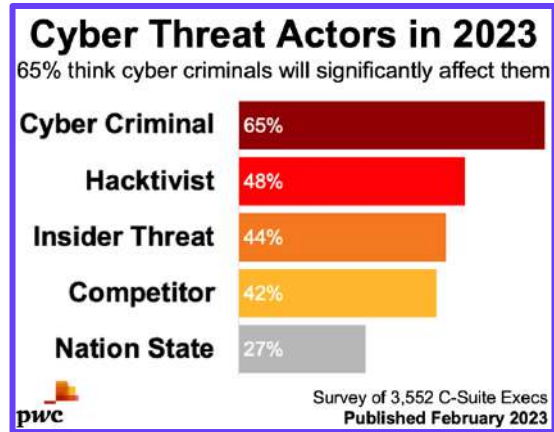
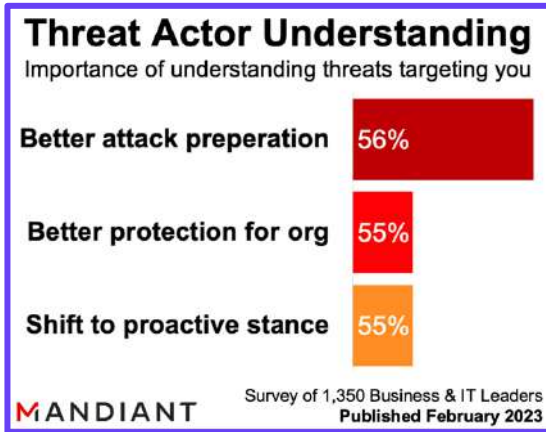
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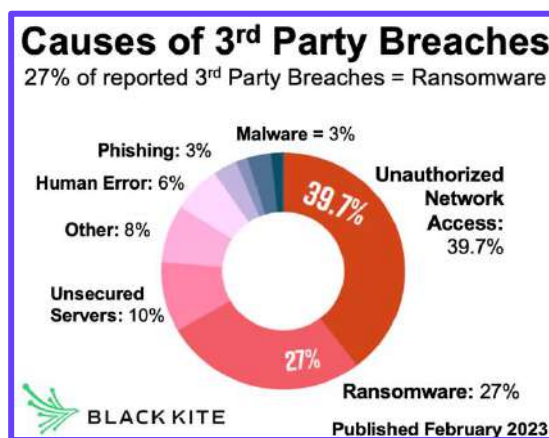
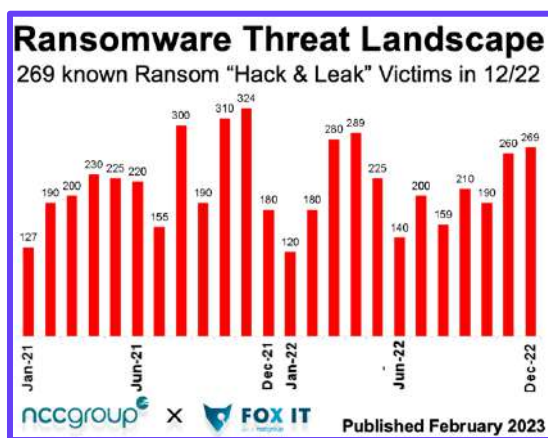
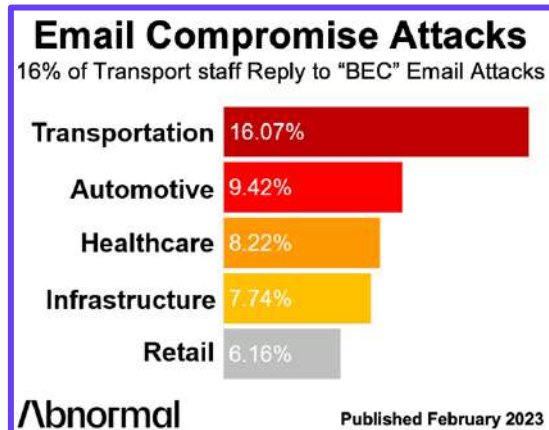
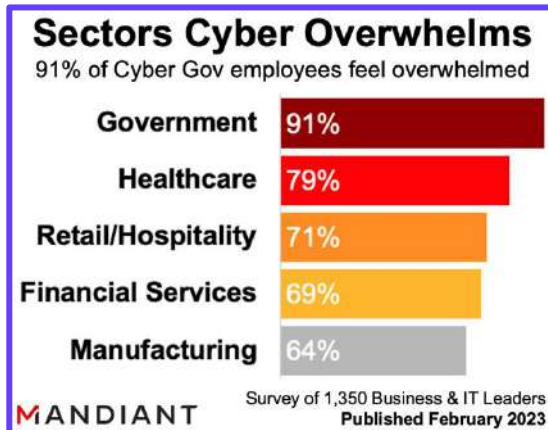
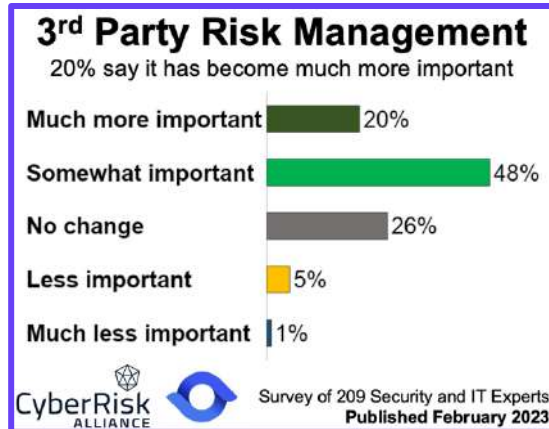
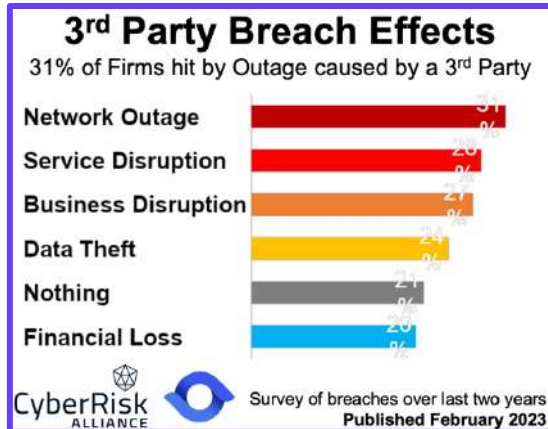
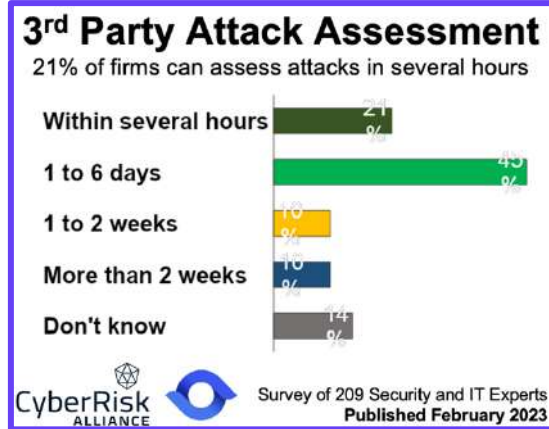
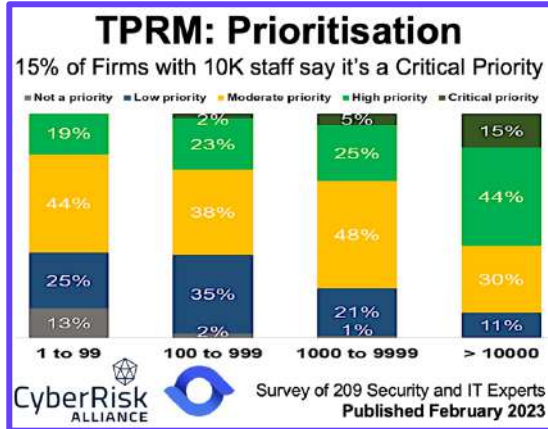
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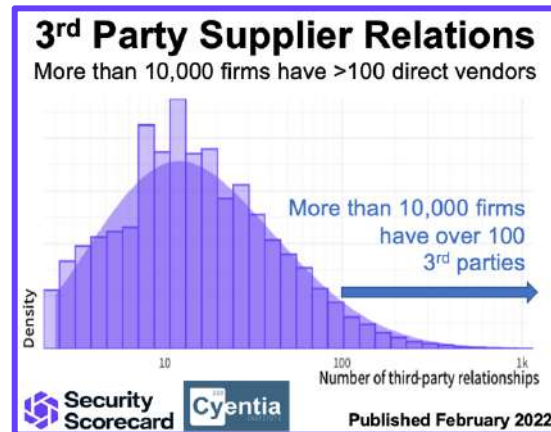
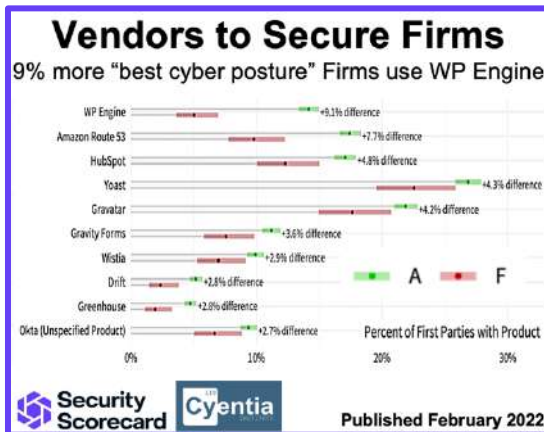
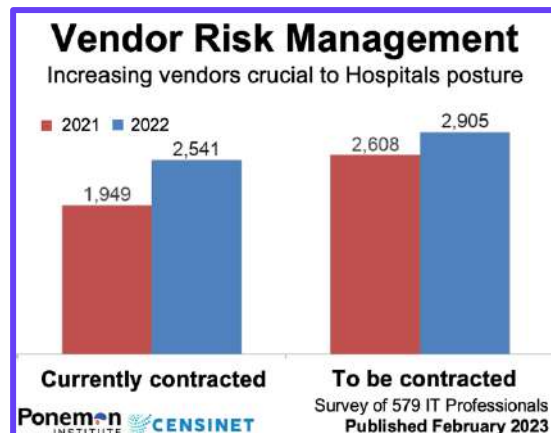
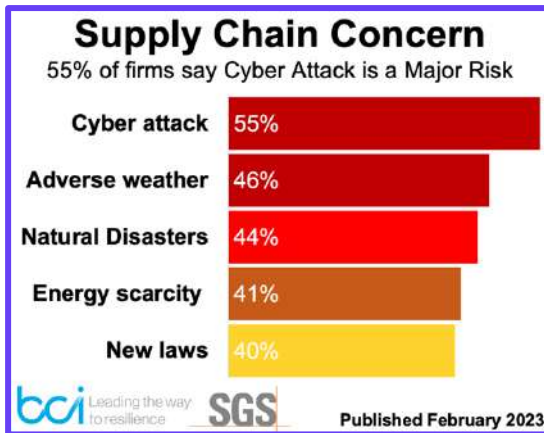
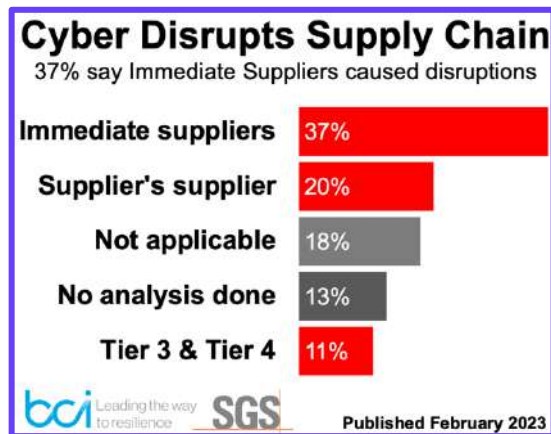
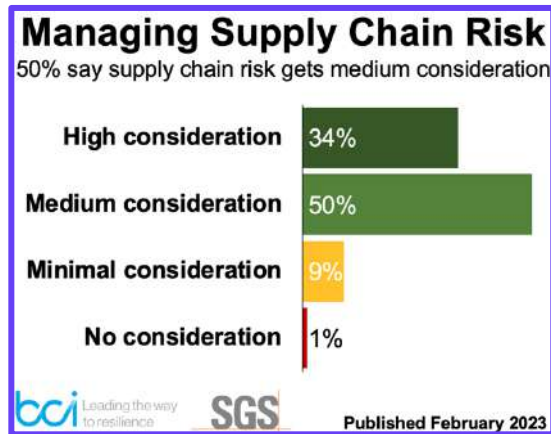
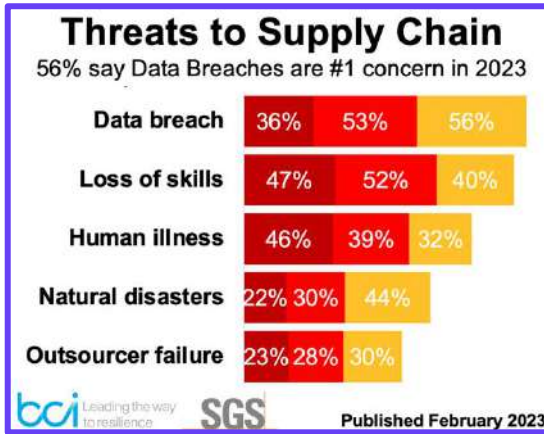
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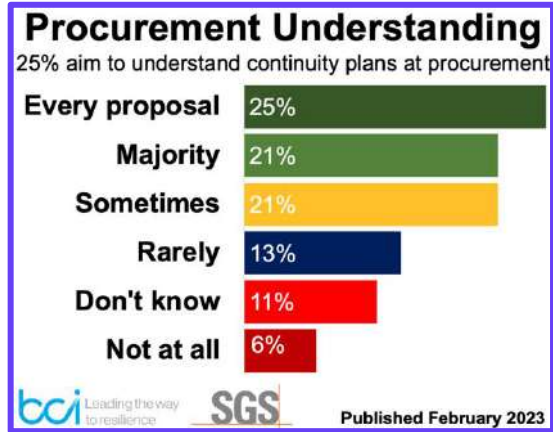
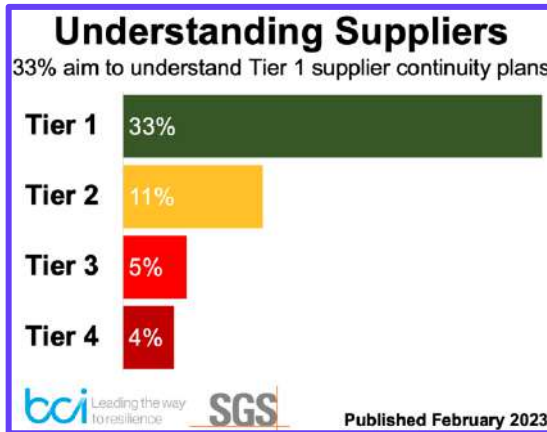
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Why Insider Threats are Up

54% of insiders already have credential access

- 54%** Insiders already have credentialed access to the network and services
- 44%** Increased use of applications that can leak data (e.g., Web email, DropBox, social media)
- 42%** Personal device access to corporate resources

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Causes of Data Breach

71% of firms fear Compromised Accounts the most

- 71%** Compromised accounts/machines (i.e., user system taken over without knowledge)
- 66%** Inadvertent data breach/leak (i.e., user unknowingly violates policy without malicious intent)
- 64%** Negligent data breach (i.e., user willfully ignoring policy, but not malicious)
- 54%** Malicious data breach (i.e., user willfully causing harm)

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Motivations of Insider Attack

59% say Monetary Gain is the main motivation

- 1** Monetary gain: 59%
- 2** Reputation damage: 50%
- 3** IP theft: 48%
- 4** Fraud: 46%
- 5** Sabotage: 43%
- 6** Espionage: 34%

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Internal vs External Threats

48% say "Internal threats are more difficult to detect"

- 48%** More difficult
- 44%** Equally as difficult
- 8%** Less difficult

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Frequency of Insider Attacks

74% of Firms say Insider Attacks now more frequent

- 26%** Less frequent
- 74%** More frequent

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Frequency of Insider Attacks

40% of Firms report zero Insider Attacks in last year

- 40%** None
- 35%** 1-5
- 13%** 6-10
- 4%** 11-20
- 8%** More than 20

GURUCUL Survey of 326 Cybersecurity Professionals Published February 2022

Top Impact of Insider Attacks

#1 impact of Insider Attacks is "Loss of Critical Data"

- #1 = Loss of Critical Data
- #2 = Brand Damage
- #3 = Operation disruption
- #4 = Loss in Revenue
- #5 = Legal Liabilities

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Ransomware Software

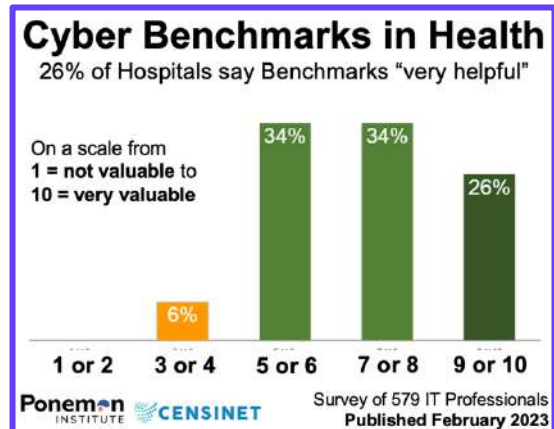
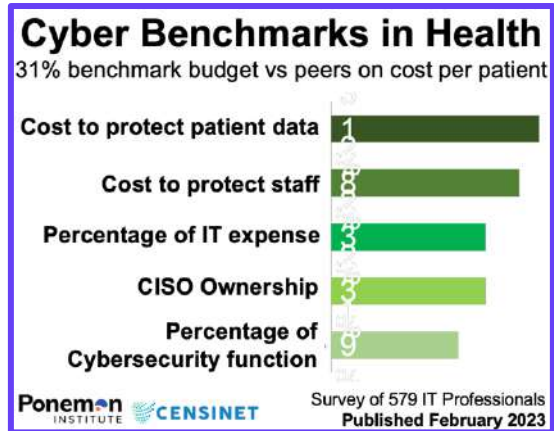
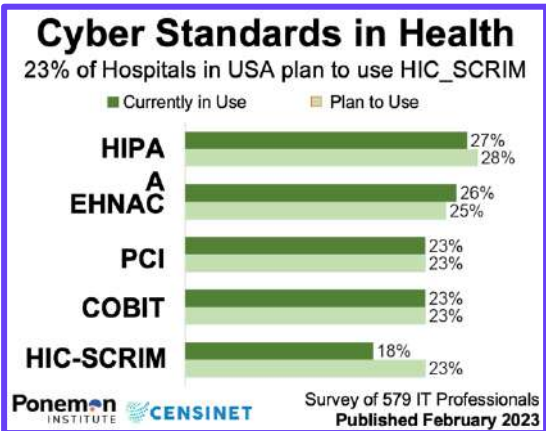
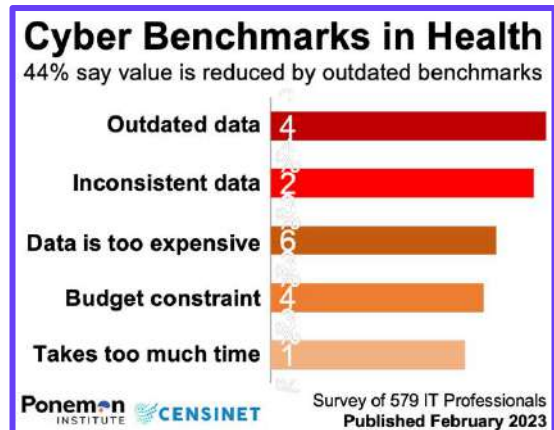
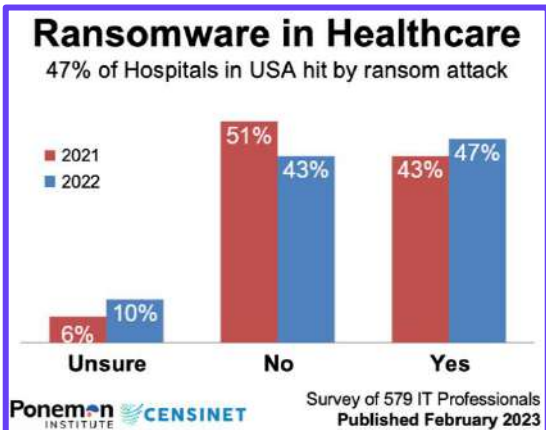
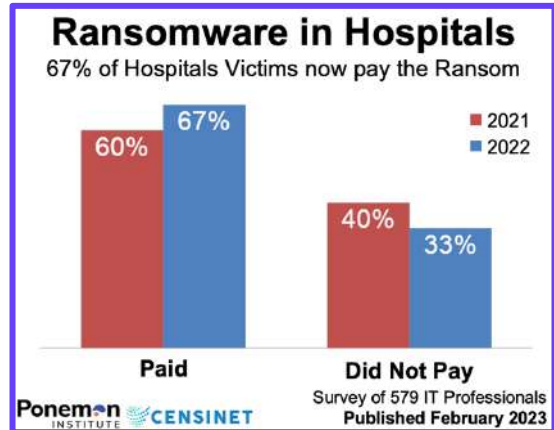
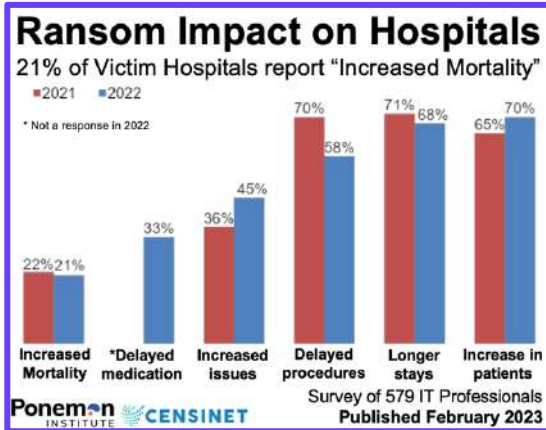
7 Advanced Threat Groups (APTs) use Maze code

Name of the Ransomware	Count of APT Groups Using the Ransomware
Maze	7
DarkSide	5
Gimemo	4
WannaCry	4
BlackCat	3

CSW | ivanti[®] Review of Ransomware Threats Published February 2023

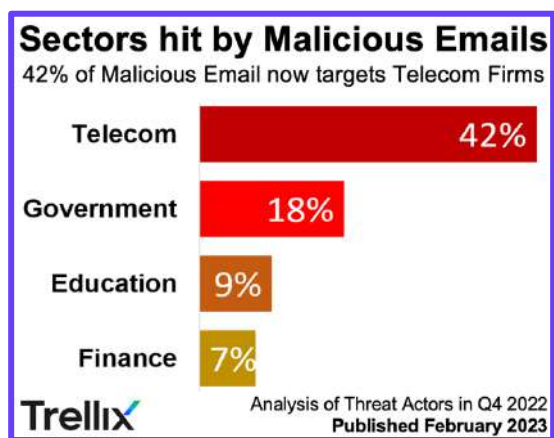
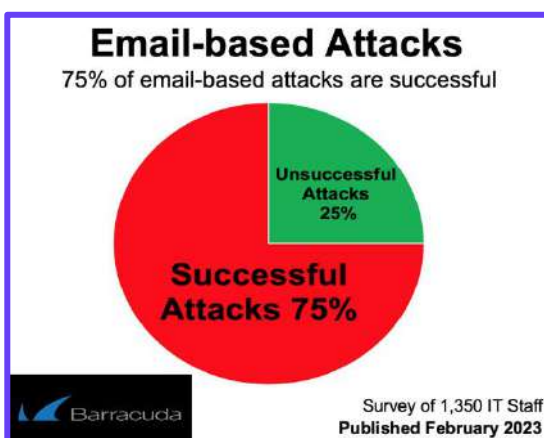
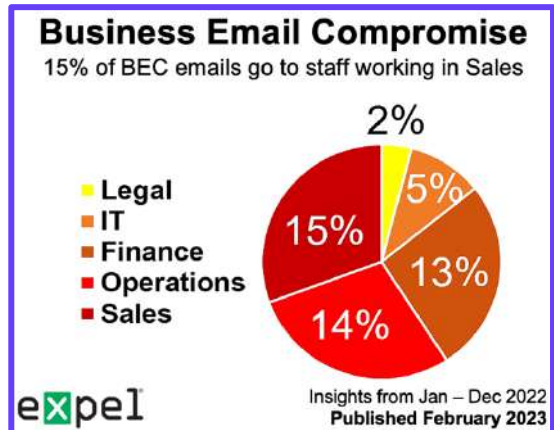
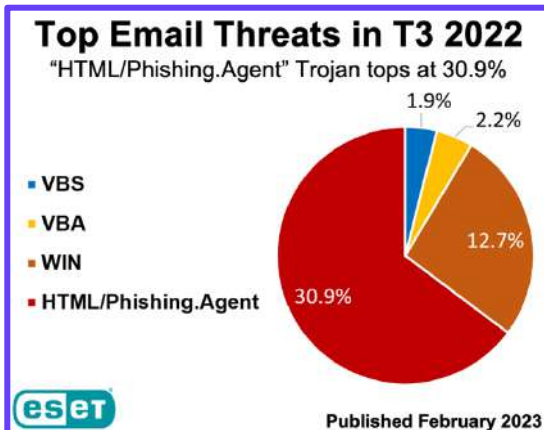
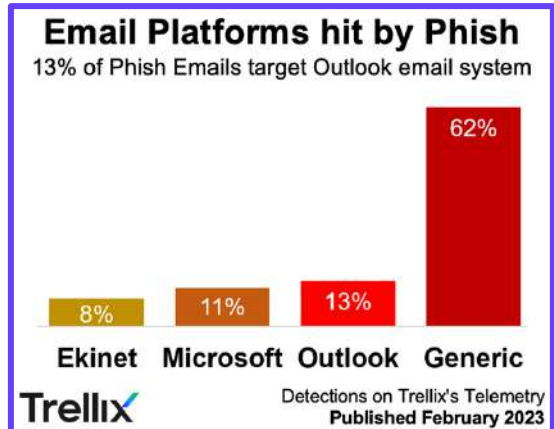
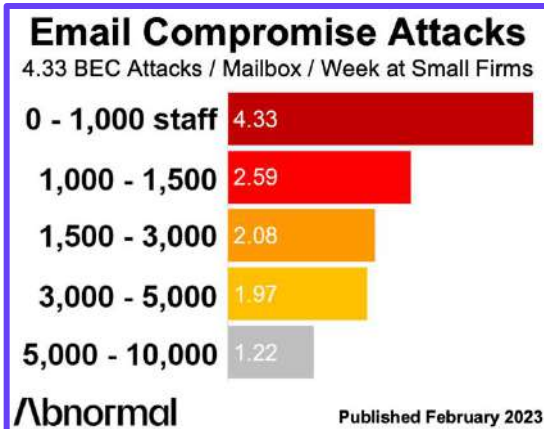
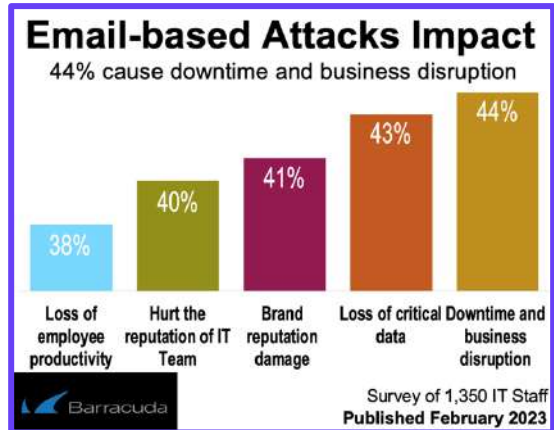
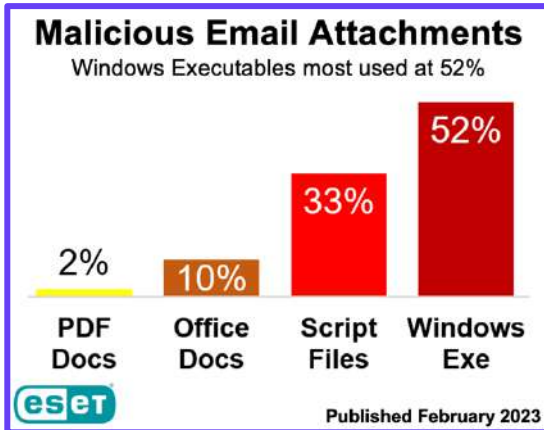
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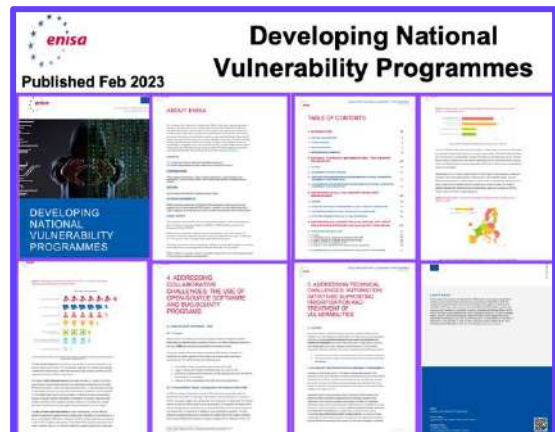
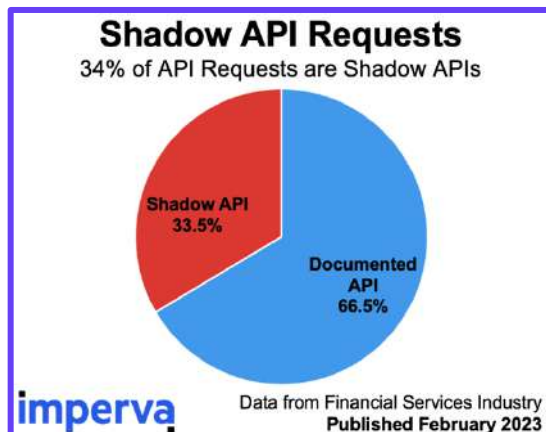
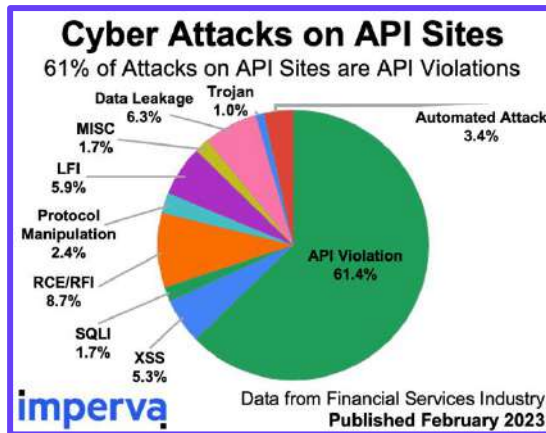
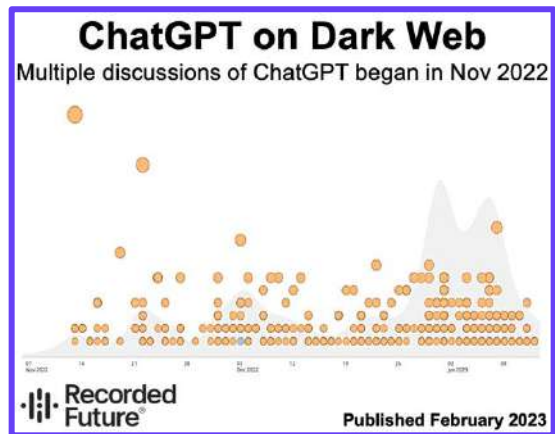
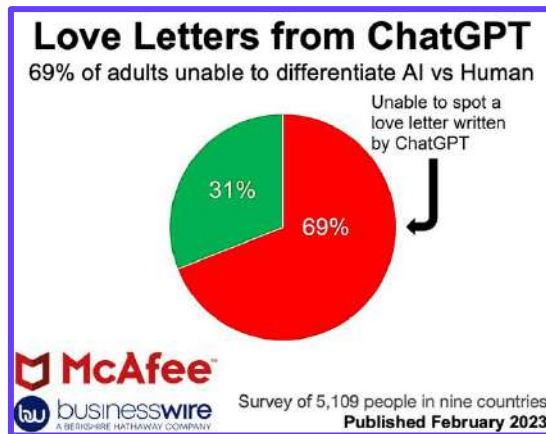
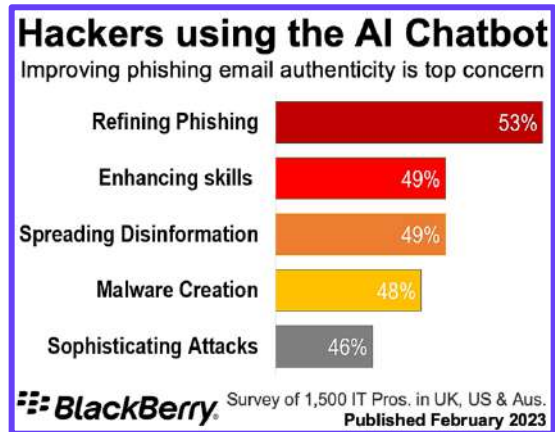
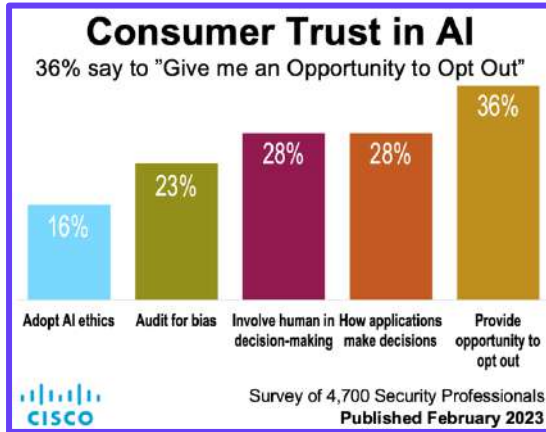
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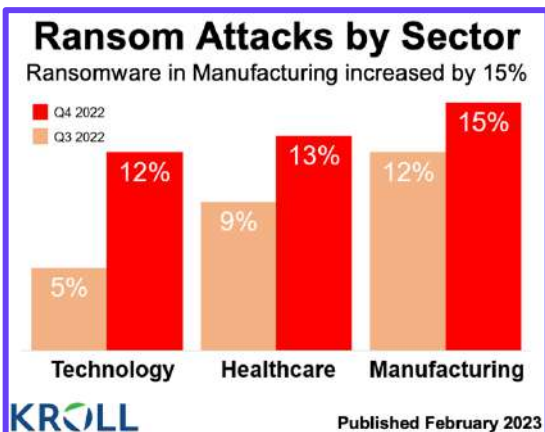
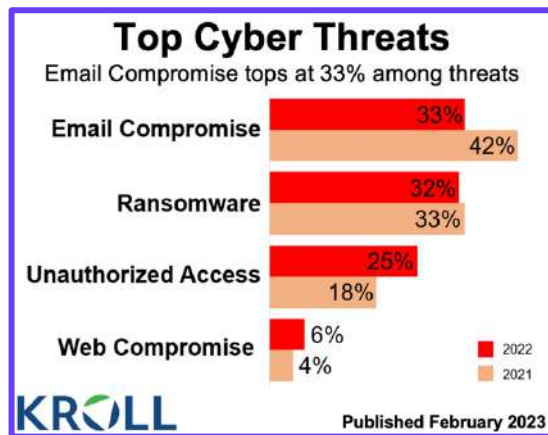
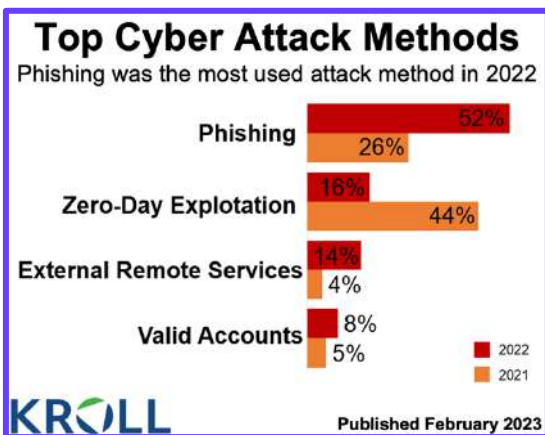
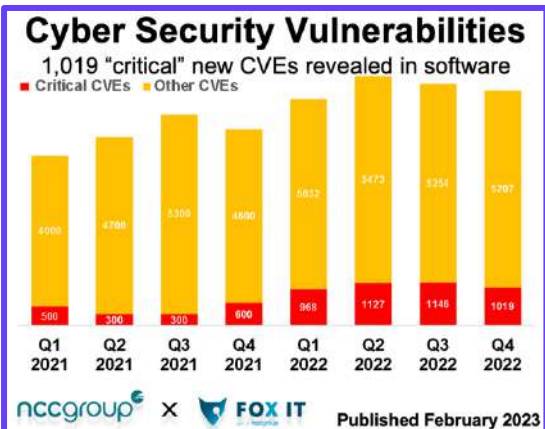
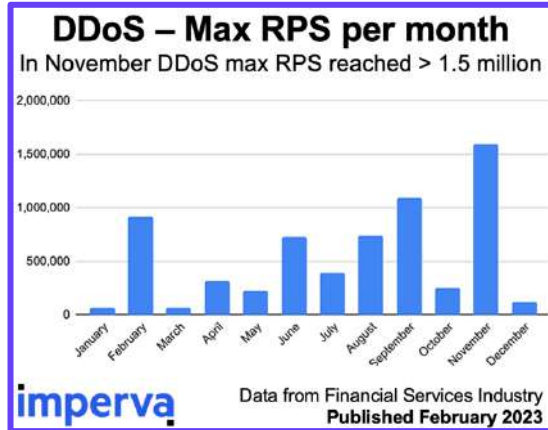
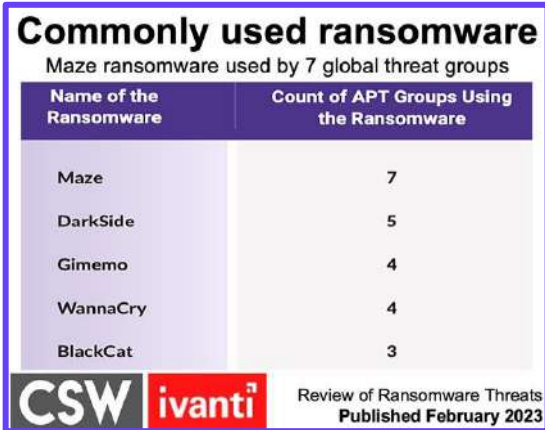
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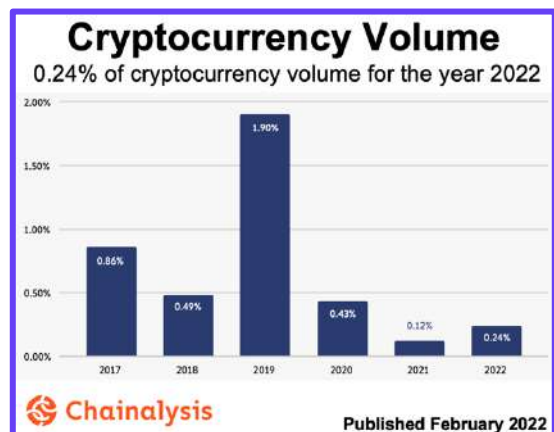
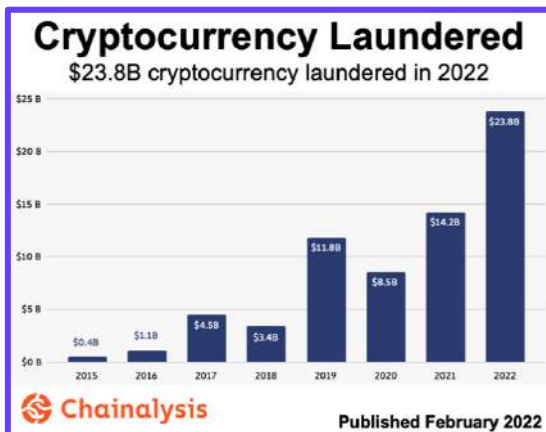
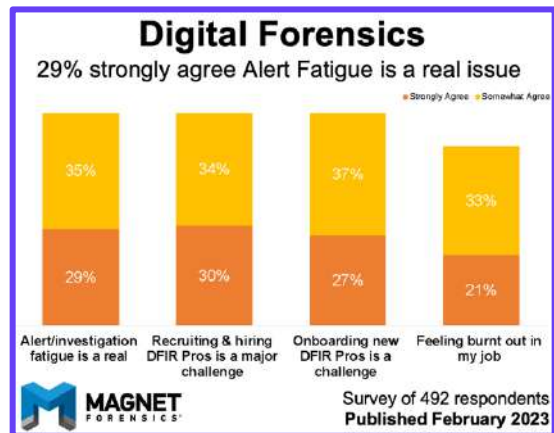
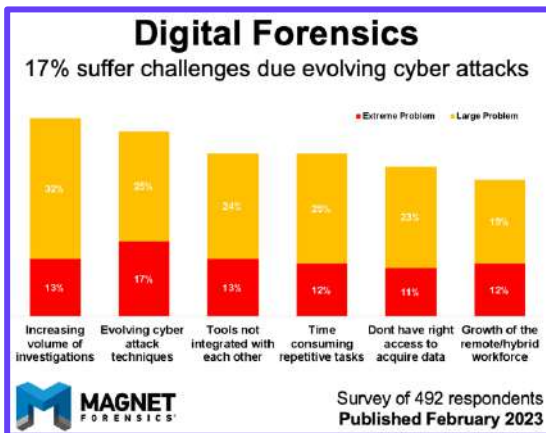
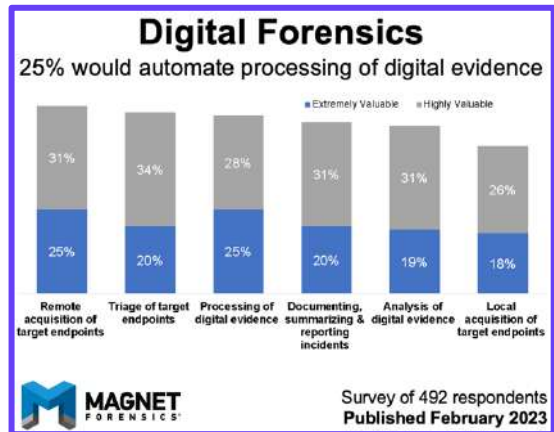
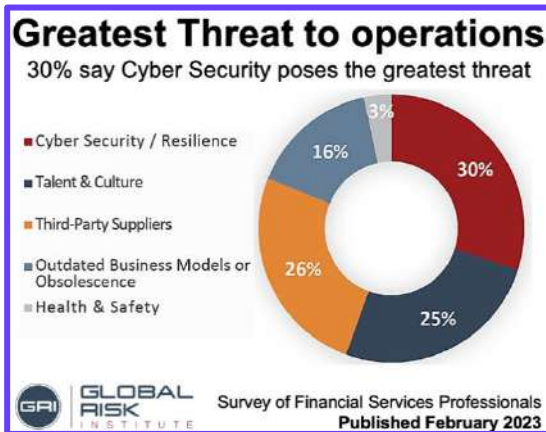
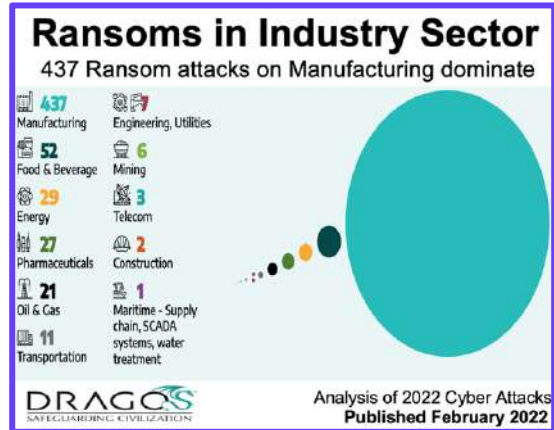
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Cyber Risk Quantification

Top Five reasons that **Firms** implement CRQ

- #1 = **Assess ROI** of cyber security
- #2 = **Prioritise Risk Remediations**
- #3 = **Quantify risk** from cyber threats
- #4 = **Calibrate risk transfer** strategies
- #5 = **Justify budget** for cyber security

FORRESTER Report on 15 CRQ vendors
Published February 2023

Cyber Risk Quantification

Top three reasons for **CISOs** to implement CRQ

- #1 = **Standardise taxomony** of risks
- #2 = **Reframe conversation** about risk
- #3 = **Cement CISO's role** as a partner

FORRESTER Report on 15 CRQ vendors
Published February 2023

Cyber Risk Quantification

Choose your Use Case column to find best Vendor

Vendor	Articulate ROI of current cybersecurity investment	Prioritize risk treatment and remediation strategies	Quantify current cybersecurity risk to boards of directors	Rationalize and calibrate risk transfer strategies	Justify current cybersecurity budget and future investment
Accenture	●		●		
Axio	●		●	●	●
Balbix	●	●	●		
Boston Consulting Group (BCG)	●	●	●		●
Cyberwrite			●	●	
Deloitte	●	●	●		●
EY	●		●		●
IBM	●	●	●		●
Kovr		●	●	●	
KPMG	●	●	●		●

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Cyber Risk Quantification

Choose your Use Case to see needed Functionality

Functionality	Articulate ROI of current cybersecurity investment	Prioritize risk treatment and remediation strategies	Quantify current cybersecurity risk to boards of directors	Rationalize and calibrate risk transfer strategies	Justify current cybersecurity budget and future investment
Model software interface	●	●	●	●	●
CRQ modeling methodology	●	●	●	●	●
Threat information capture	●	●	●	●	●
Financial impact capture	●	●	●	●	●
Model visualization	○	○	●	○	○
Risk loss exposure reporting	●	●	●	●	●
Security budget portfolio optimization	●	○	○	○	●
Cyber insurance risk coverage analysis	○	○	○	●	○
Executive reporting and dashboards	○	○	●	○	○
Analytics and benchmarking data	○	○	●	○	○

FORRESTER Report on 15 CRQ vendors
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Cyber Attacks on Devices

21% of Cyber Attacks on Devices target Hikvision

Hikvision	21%
D-Link	14%
Apple	7%
Samsung	5%
RaySharp	3%

CUJOAI Data from CUJO AI Sentry & AI Explorer
Published February 2023

Cyber Attacks on Devices

Computers are most threatened device with 31.6%

Desktops & Laptops	32%
IP Cameras	25%
Smartphones	14%
Network-Attached Storage Devices	10%
DVRs	7%

CUJOAI Data from CUJO AI Sentry & AI Explorer
Published February 2023

Cyber Attacks on Devices

63% of attacked Audio-Video Devices are Dahua

Dahua	63%
Meta	11%
Samsung	9%
Loxex	6%
Denon	3%

CUJOAI Data from CUJO AI Sentry & AI Explorer
Published February 2023

Cyber Attacks on Cameras

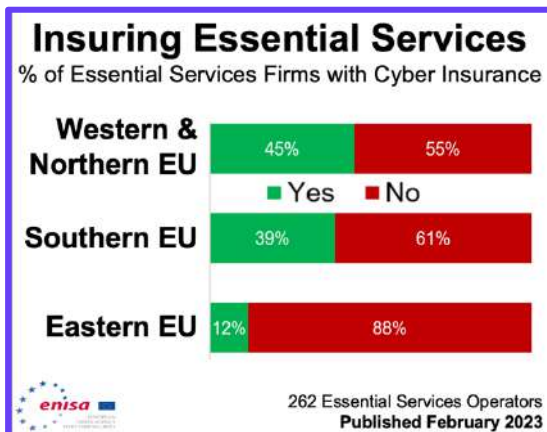
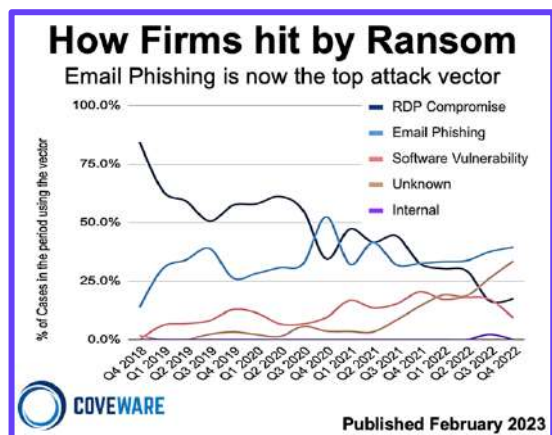
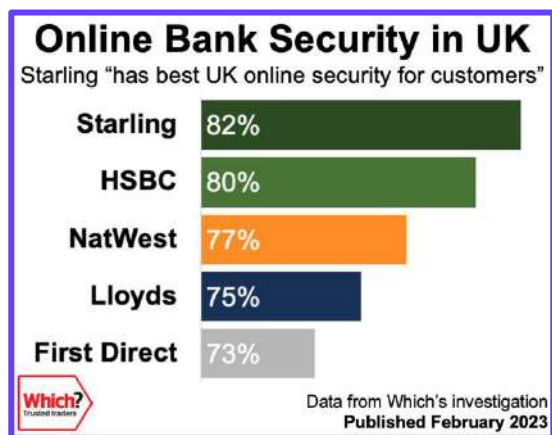
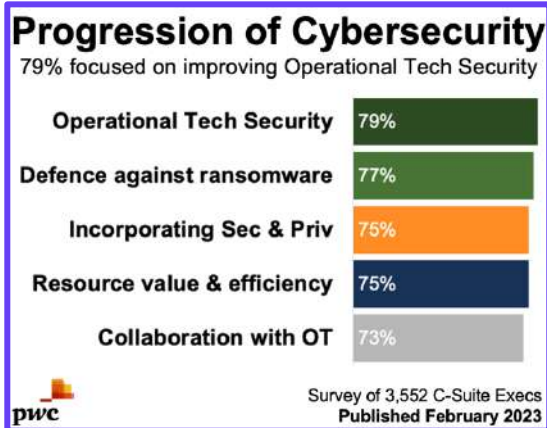
58% of attacked IP Camera Brands are Hikvision

Hikvision	58%
D-Link	37%
Other	3%
Amcrest	1%
ClareVision	0%

CUJOAI Data from CUJO AI Sentry & AI Explorer
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Top Global Business Risks

Experts list **Cyber Incidents** as key a risk

- #1 = **Cyber Incidents**
- #2 = Business Interruption
- #3 = Macroeconomic developments
- #4 = Energy Crisis
- #5 = Legislation & Regulation changes

Allianz  Insights from over 2,712 respondents
Published January 2023

Business Interruption Risks


Cyber Incidents most feared interruption at 45%




Allianz  Insights from over 917 respondents
Published January 2023

Chief Risk Officer Top Priorities


Cybersecurity Risk is Top Priority for next 12 months




EY  Data from Annual Survey of Bank CROs
Published January 2023

Risks needing C-Level Attention


Cybersecurity will require most attention in next 3 years



EY  Data from Annual Survey of Bank CROs
Published January 2023

Cyber Resilience Confidence

20% of CEOs "concerned" about their resilience



WORLD ECONOMIC FORUM  Survey of 117 firms
Published January 2023

CEOs want Cyber Regulation

29% of Business Leaders say Regs help Resilience




WORLD ECONOMIC FORUM  Survey of 117 firms
Published January 2023

Priorities for Cyber Resilience

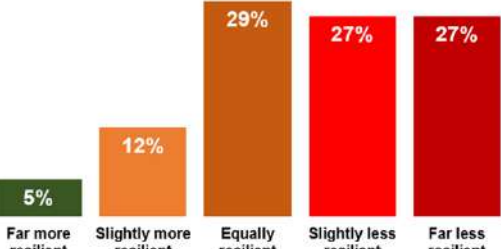
Cyber Controls are Highest Priority Enhancement


Priority	Low Priority	2	3	4	High priority
Cyber controls	7%	27%	33%	24%	6%
Technology capacity	24%	40%	33%	24%	19%
Third-party risks	20%	49%	30%	1%	1%
Technology testing	43%	33%	20%	4%	0%
Third-party testing	33%	44%	20%	3%	0%
Control testing	32%	45%	17%	6%	0%

EY  Data from Annual Survey of Bank CROs
Published January 2023

Cyber Risk at Third Parties

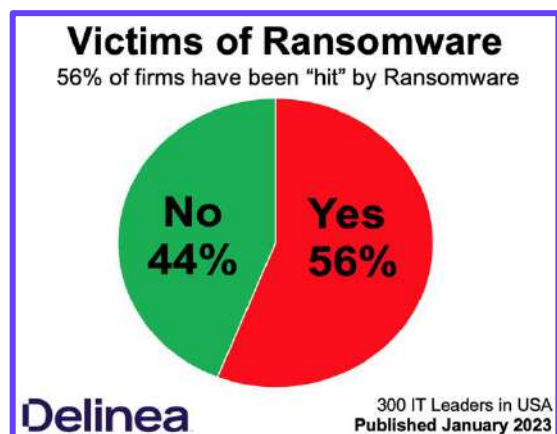
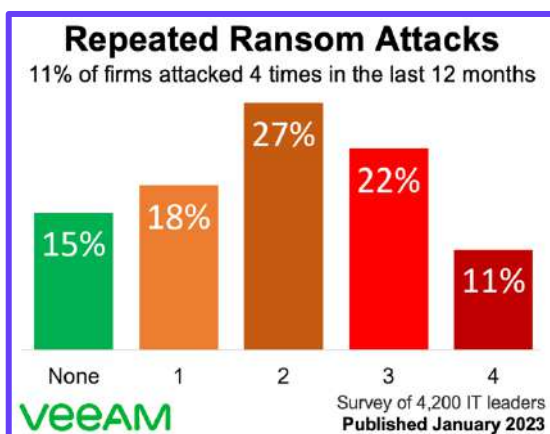
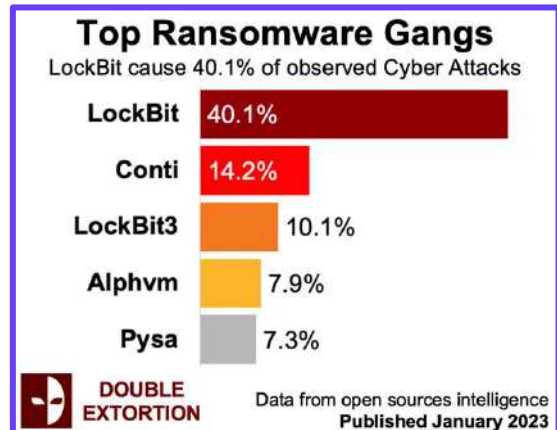
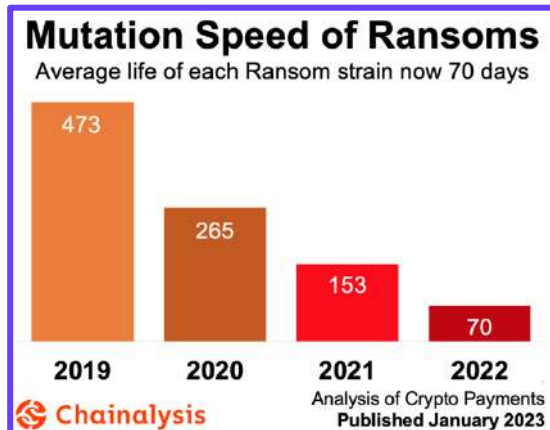
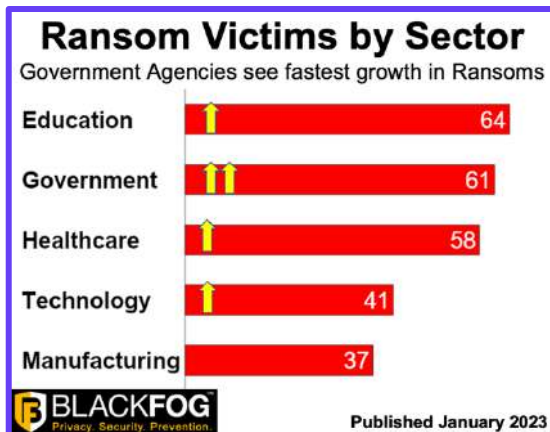
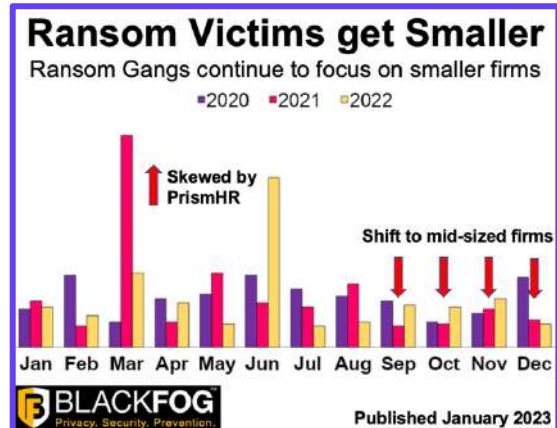
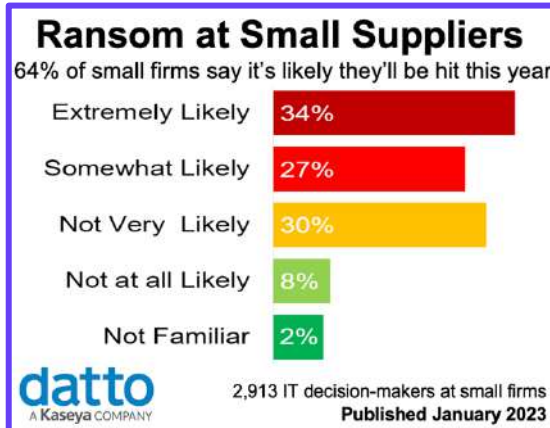
27% of CEOs say Suppliers are "Far Less Resilient"



WORLD ECONOMIC FORUM  Survey of 117 firms
Published January 2023

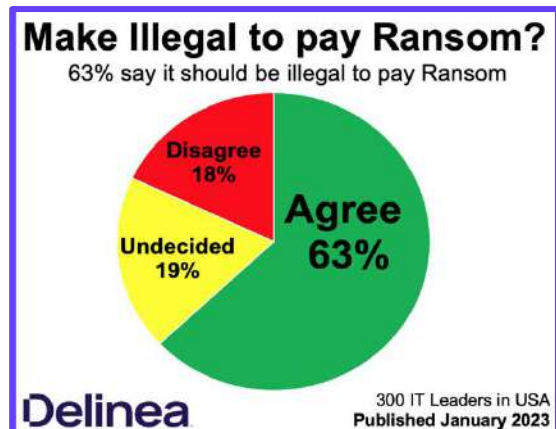
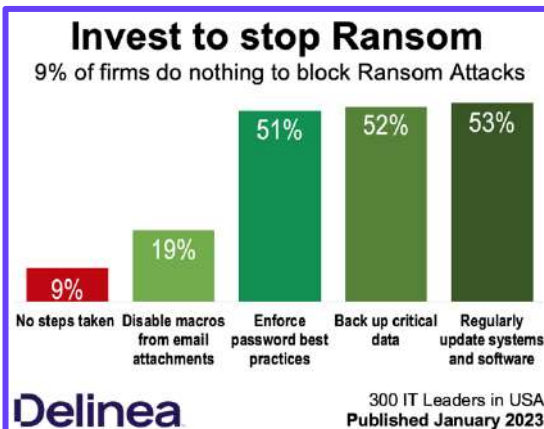
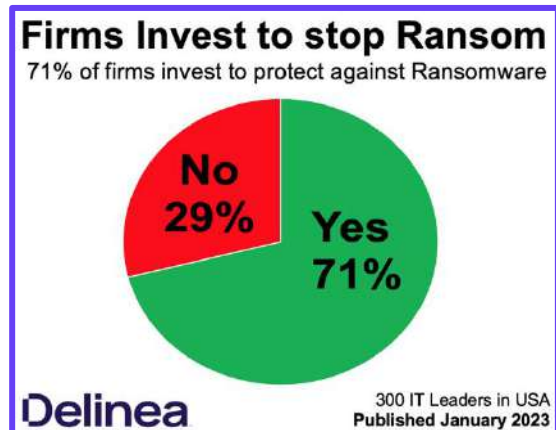
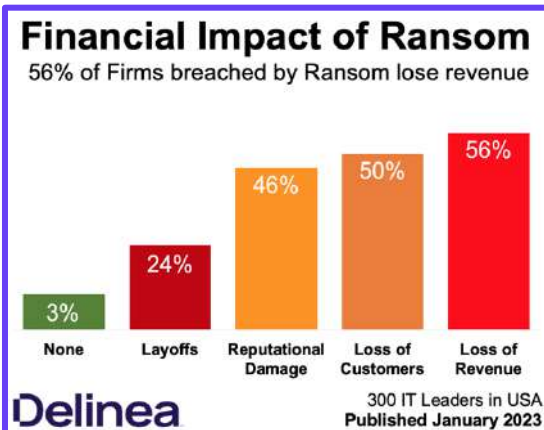
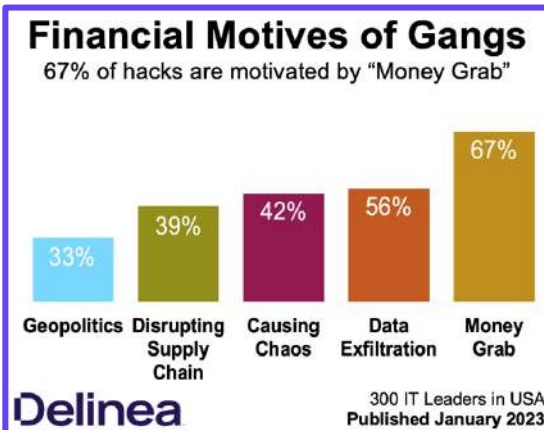
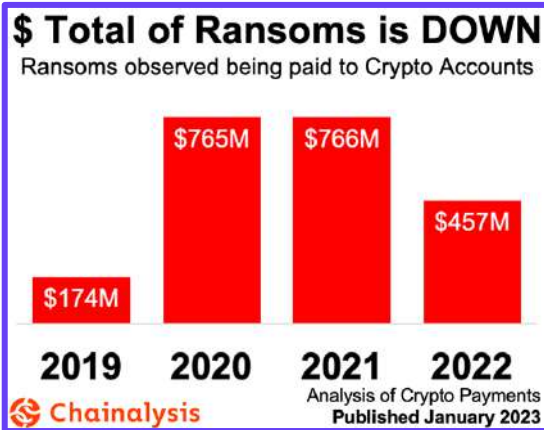
Cyber Insights: *Ransomware Attacks*

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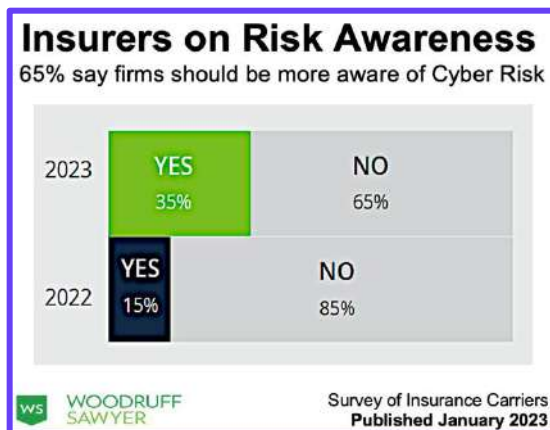
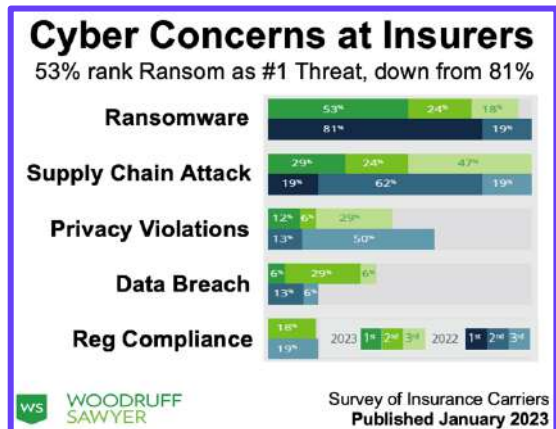
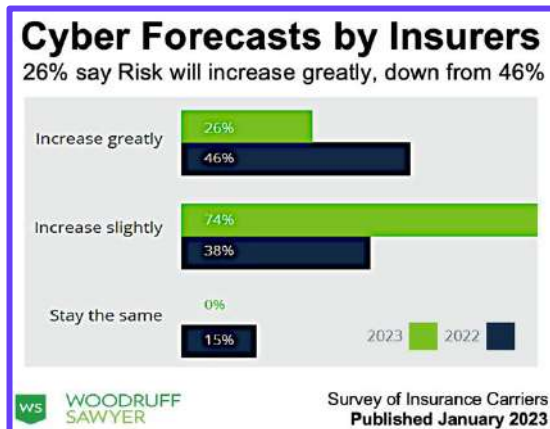
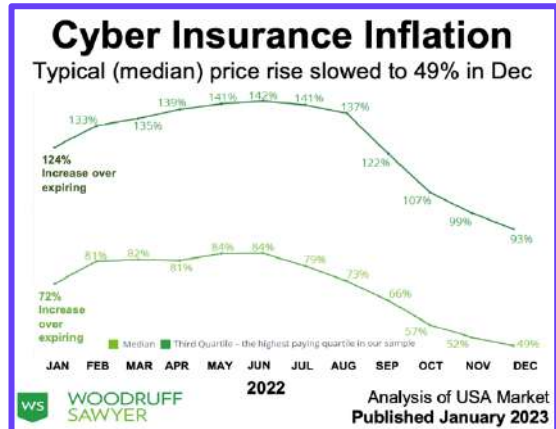
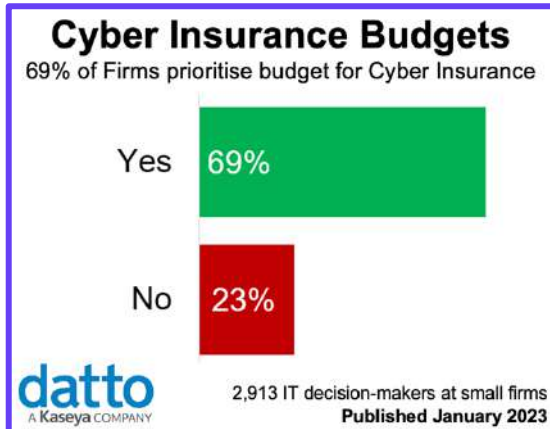
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Cyber Insights: *Cyber Insurance*

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Modelling Cyber Risk

Insurers' Capital Requirements

Published Jan '23

Institute and Faculty of Actuaries

Cyber Catastrophe

How to calculate risk to Small Firms

Published Jan '23

cowbell®

Cyber Insights: *Cyber AI*

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W / T H[®] secure Malicious AI

How to engineer AI for Cyber Attacks

Published Jan '23

GPT-3 vs GPT-4

GPT4 will have 500x more parameters than GPT3

GPT-4

GPT-3

GPT-3	175,000,000,000 Parameters
GPT-4	100,000,000,000,000 Parameters

Published January 2023

The Cyber Rescue Alliance Best New AI Services

See Tomorrow, by using these Today

Published Jan 2023

Cleanup.pictures Removes Unwanted Objects	RESUME WORDED Instantly Scores Resumes	SOUNDRAW AI Music Generator	Looka Design Logos, Websites, Brands	copy.ai AI-Powered Copywriter
ELSA Artificial Speaking Coach	Personal Personal Robotic Tutor	crayon AI Image Generator	OpenAI AI-Powered Chatbot	GLMDA Breakthrough Conversation Technology
tome Generates & Builds	Automatically Automatically	Notion Writes Notes & Builds	QuillBot Rephrase Your	YOU AI Search Engine

480 AI Firms Categorised

159 build AI for Text & Chat (Grammarly, ChatGPT)

Text + Chat	159
Image	71
Audio	59
Video	57
ML Ops Platform	42

NFX

Published January 2023

The Cyber Rescue Alliance ChatGPT for Coding

How hackers & coders already use AI

Published Jan 2023

The Cyber Rescue Alliance ChatGPT & Cyber

Published Jan 2023 23 ChatGPT Functions for Cyber

ChatGPT for CyberSecurity #1	What is ChatGPT
Create Incident Response process	Containment Malware
Threat Correlation	Useful Volatility Commands
Identify Threat	Create script, but to Image Forensic

ChatGPTs Risk to Cybersecurity

41% think ChatGPT poses a significant risk to Cyber

Yes	41%
Not sure	31%
No	28%

CSH

Data from LinkedIn Poll with > 14,000 votes
Published January 2023

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY DEPARTMENT OF COMMERCE Artificial Intelligence Risk Management Framework

Published Jan 2023

Cyber Insights: *Cyber Governance*

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WORLD ECONOMIC FORUM Davos Global Risks Report

Published Jan 2023

Cyber is #4 for Firms

Davos Report on Risks to Firms

Experts list **Cyber Insecurity** as key a risk to 2025

- #1 = Cost of Living Crisis
- #2 = Natural Disasters
- #3 = Geo-Economic confrontation
- #4 = **Cyber Insecurity**
- #5 = Environmental Damage

WORLD ECONOMIC FORUM Insights from over 1,200 experts
Published January 2023

Cyber Laws in Each Country

67% of UN Member States have substantive laws

Year	No Cyber Laws	Some	Laws against most crimes
2013	32%	32%	36%
2018	19%	33%	48%
2020	12%	33%	55%
2023	8%	25%	67%

CSH Survey of 94% UN Member States
Published January 2023

10 Laws of Cyber Security

Microsoft's "Immutable Laws of Cyber Security"

- **Define Success**
Ruin your attacker's ROI
- **Cyber is Team Sport**
Outsource to experts
- **Keep Up**
Patch continuously
- **Zero Level Trust**
Don't Trust Network
- **Productivity Wins**
Automate for efficiency
- **Isolated Networks**
aren't always secure
- **Attackers don't care**
Understand options
- **Encryption Protects**
But it isn't enough
- **Prioritize to Survive**
Know what's important
- **Tech doesn't solve**
Invest: People & Process

Microsoft Published January 2023

Top 5 Cyber Posture Metrics

Asset Inventory Coverage is the Top Posture Metric

- #1 = Asset Inventory Coverage
- #2 = Software Inventory Coverage
- #3 = Security Controls Coverage
- #4 = Vulnerability Assessment Coverage
- #5 = Mean Age of Open Vulnerabilities

Balbix® Based on ability to link Security to Business
Published December 2022

Cyber Threat Intelligence Services

Why should they be part of your cybersecurity strategy?

Correlated Security Published January 2023

Security Scorecard Trust Deficit in Cyber

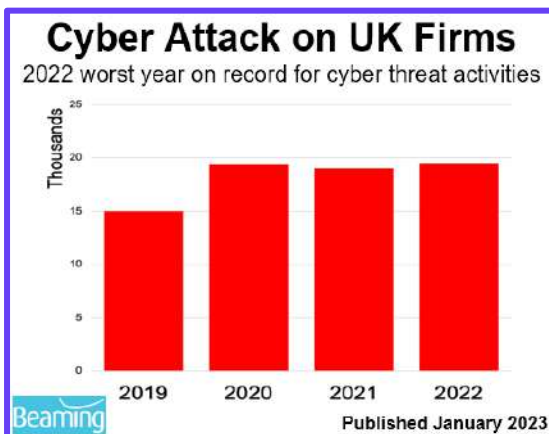
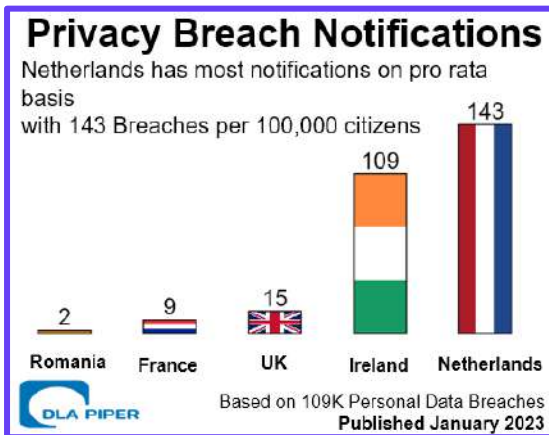
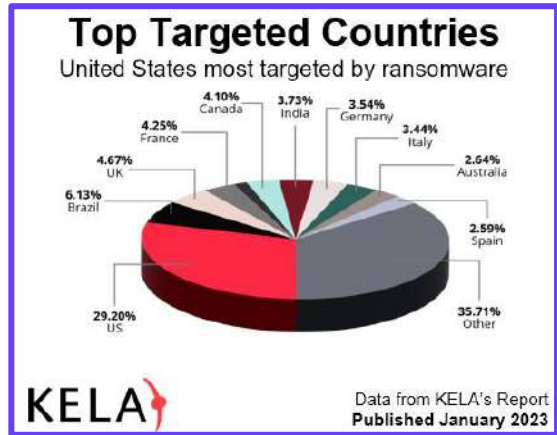
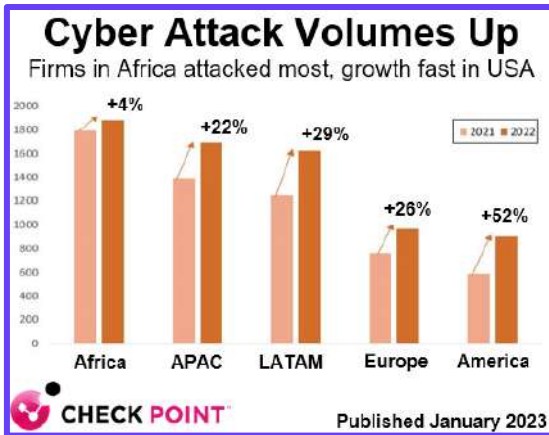
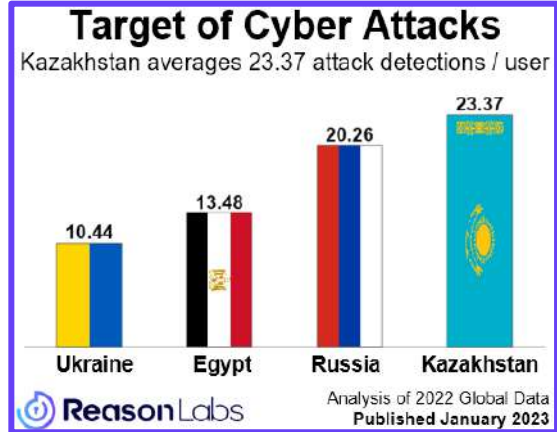
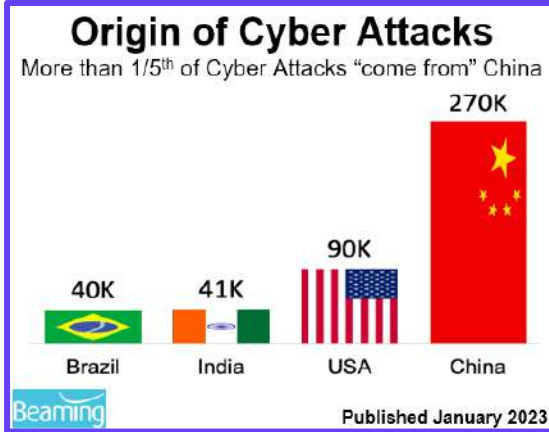
Published Jan '23 Cyber Transparency is Key

BD Publish your Strategy

Published Jan 2023 Cyber Strategy at a Medical Firm

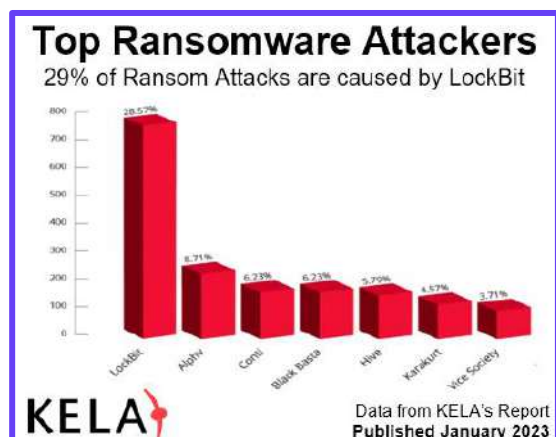
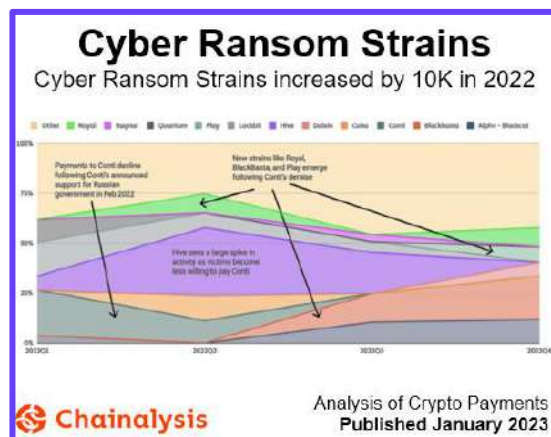
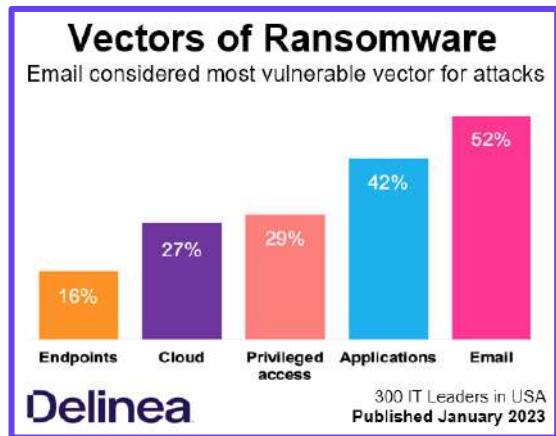
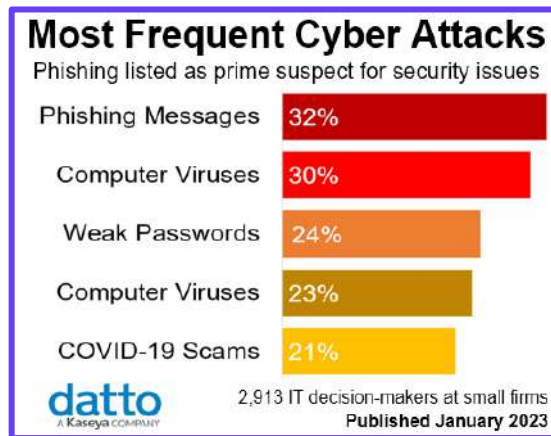
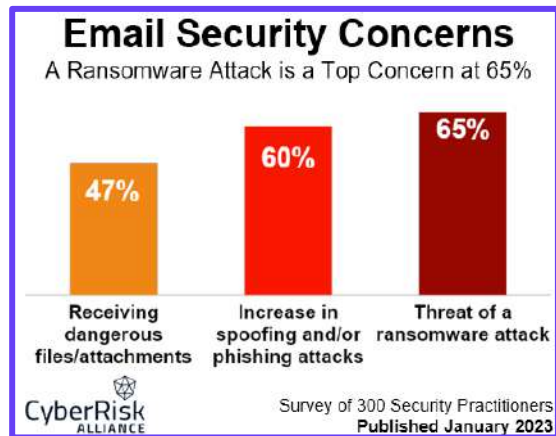
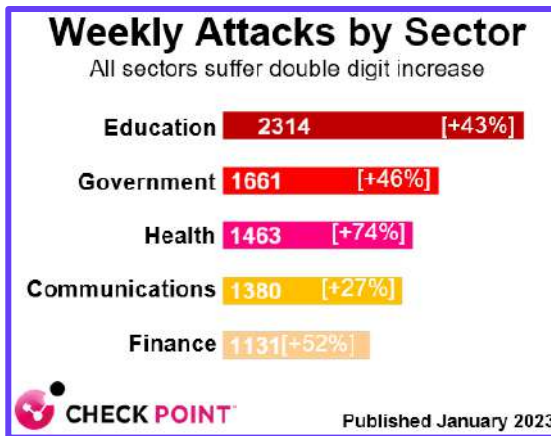
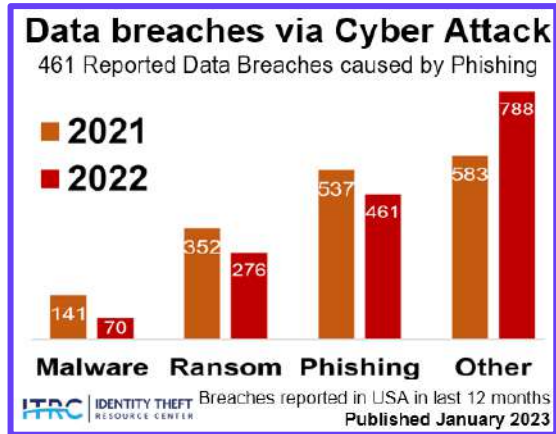
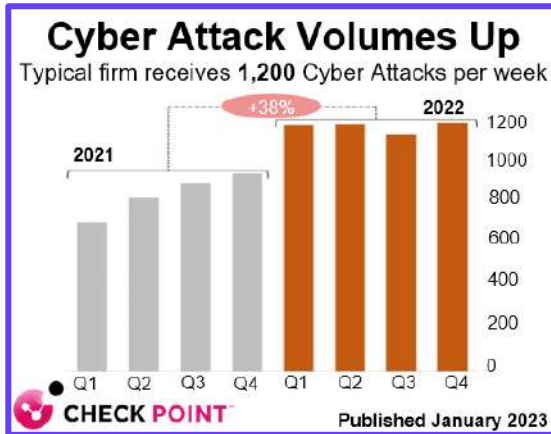
Cyber Insights: *Cyber by Country*

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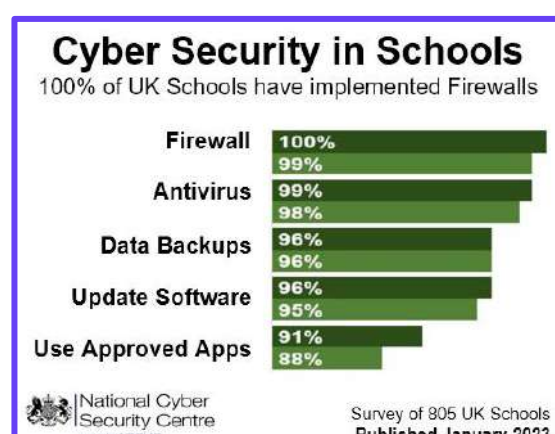
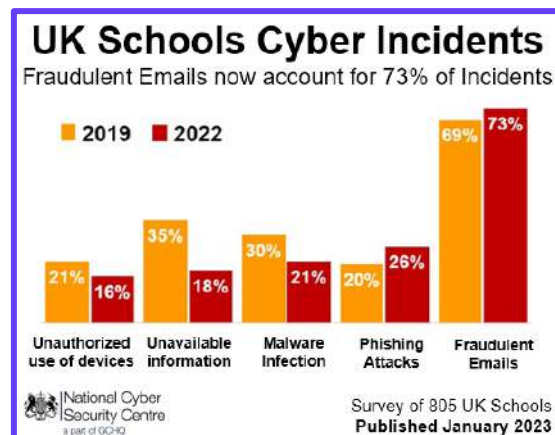
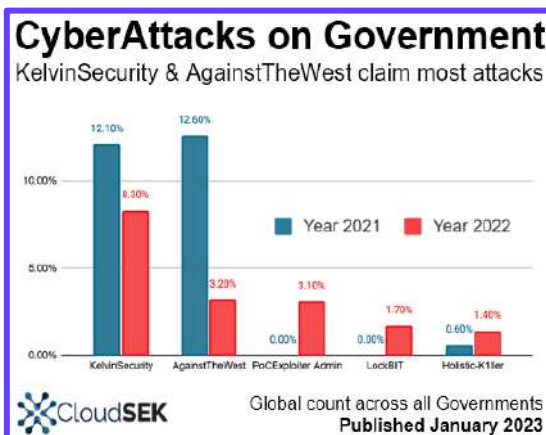
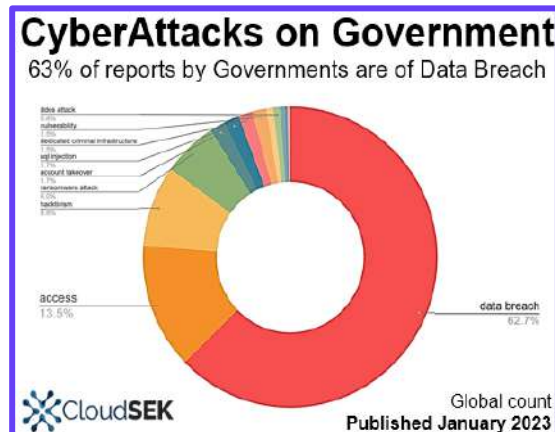
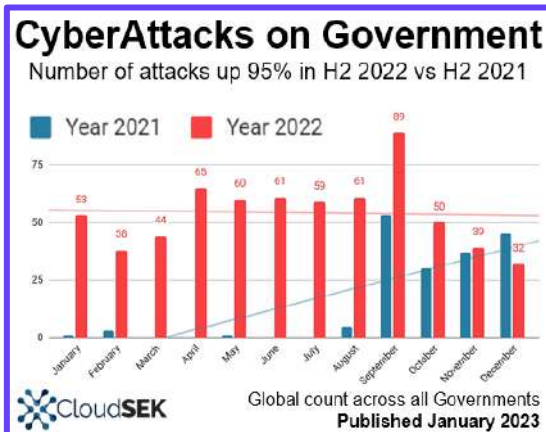
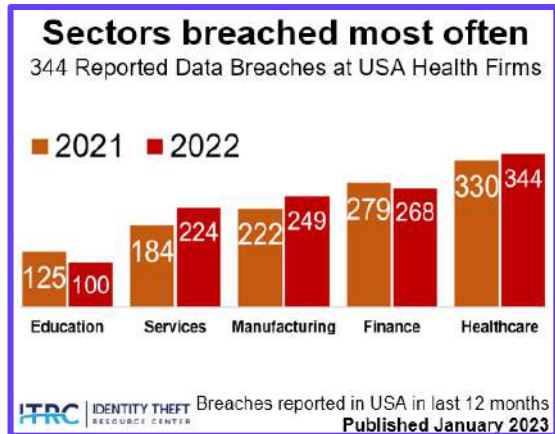
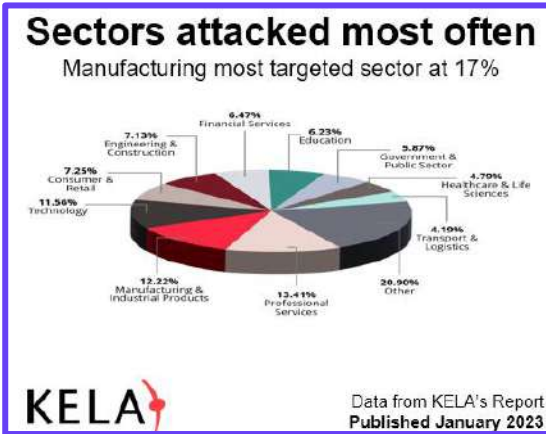
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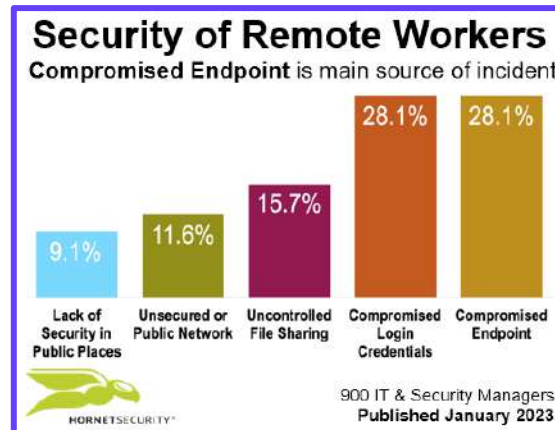
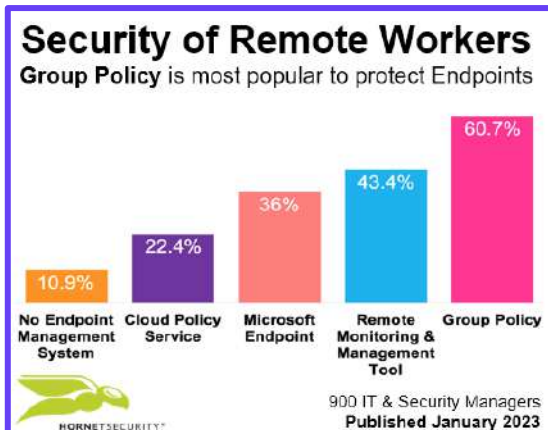
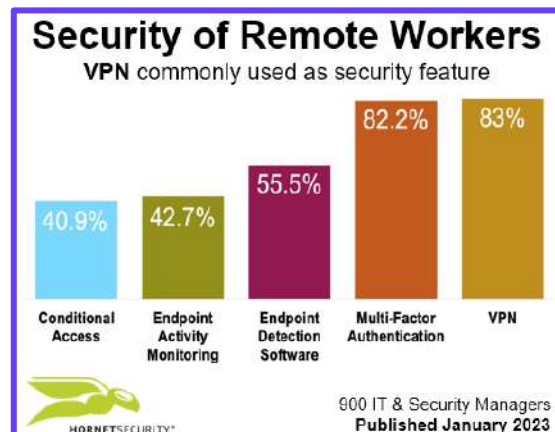
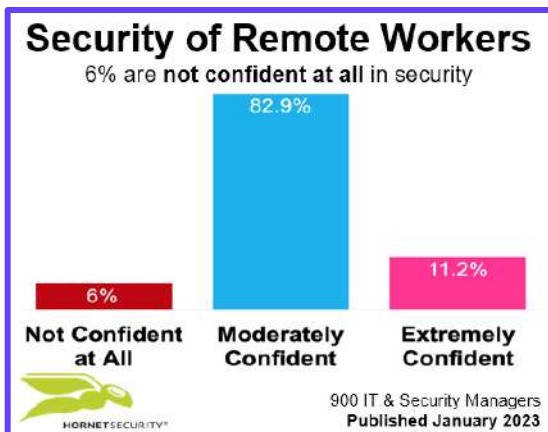
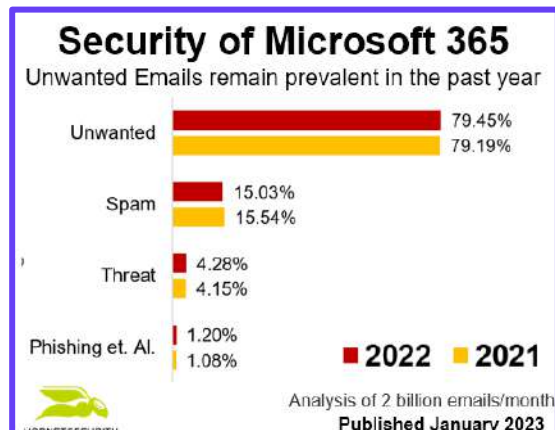
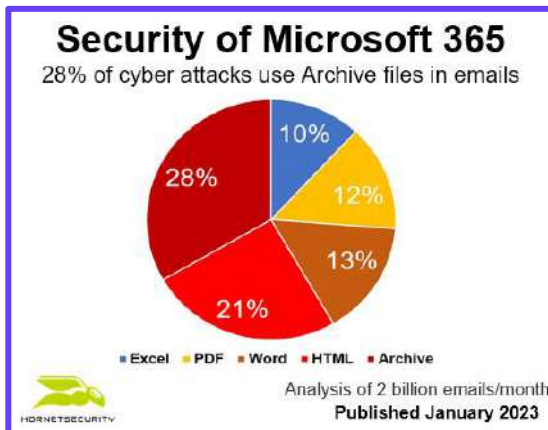
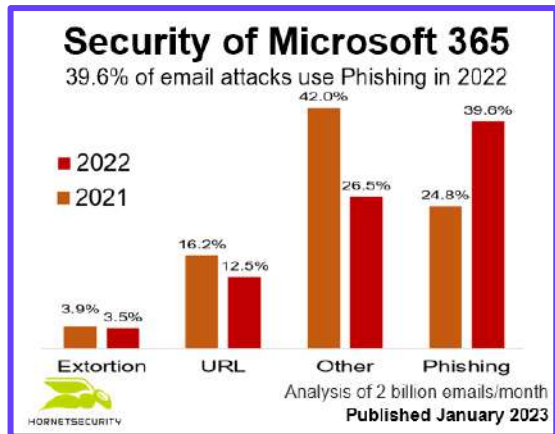
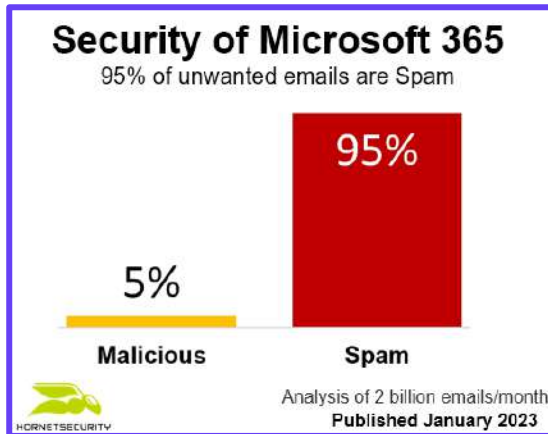
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Cyber Insights: *Microsoft & Remote Workers*

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Cyber Insights: *Respond & Recover*

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NIST Respond and Recover
Cybersecurity for Manufacturers
Published Jan '23

CYBER THEORY Cyber Sector Review
Performance of Defence Vs Attack
Published Jan '23

Hottest 10 Cyber Tools
As assessed by CRN

- **Arctic Wolf** MyCyber
- **Beyond Identity** Secure Customers
- **Cybersixgill** DVE Intelligence
- **Fortinet** FortiRecon
- **Huntress** EDR
- **Island** Enterprise Browser
- **Palo Alto Networks** Autonomous SOC
- **SentinelOne** XDR Ingest
- **Sophos** X-Ops
- **Tenable** One Platform

CRN Published December 2022

Cyber Fears at Small Firms
Phishing Emails Top Concern of small firms at 37%

Phishing Emails	37%
Malicious Websites	27%
Poor User Practices	24%
Weak Passwords	24%
Lack of Training	23%

datto A Kaseya COMPANY
2,913 IT decision-makers at small firms
Published January 2023

Defences vs Ransomware
Most popular defence used is **Antivirus Software**

Antivirus Software	57%
Spam Protection	53%
Managed Firewall	49%
File Backup	49%
Security Training	43%

datto A Kaseya COMPANY
2,913 IT decision-makers at small firms
Published January 2023

Firms Invest to stop Ransom
43% of small firms invest in Network Security

Endpoint security	15%
Application security	21%
Identity and access management	22%
Cloud security	35%
Network security	43%

Delinea 300 IT Leaders in USA
Published January 2023

Email Security Strategy
Current and planned strategies on email security

Strategy	Planned	Currently Included
Vulnerability Management	26%	65%
Spoofing/Phishing Protection	18%	79%
Email backup	14%	80%
Security Awareness	16%	80%
Attachment Scanning	12%	85%

CyberRisk ALLIANCE Survey of 300 Security Practitioners
Published January 2023

Top Recovery Method
Manual Backup is Top Method for next 12 months

Manual Backup	49%
Continuous Availability	36%
Old Systems Backup	36%
Third-Party Recovery	32%
No data loss	13%

datto A Kaseya COMPANY
2,913 IT decision-makers at small firms
Published January 2023

Cyber Insights: *Cyber Developments*

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Davos Report on Global Risks

Experts say **Cyber Attacks on Infrastructure** key

The chart shows various global risks on a scale of impact and awareness. 'Cyber Attacks on Critical Infrastructure' is highlighted as a top concern.

WORLD ECONOMIC FORUM
Insights from over 1,200 experts
Published January 2023

CEOs want Cyber Regulation

29% of Business Leaders say Regs help Resilience

Response	Business leaders	Cyber leaders
Strongly agree	29%	24%
Agree	44%	49%
Neither agree nor disagree	10%	16%
Disagree	12%	9%
Strongly disagree	5%	3%

WORLD ECONOMIC FORUM
Survey of 117 firms
Published January 2023

CEOs vs CISOs on Cyber

Business Leaders say Awareness > Cloud Security

Topic	Business leaders' rank	Cyber leaders' rank
Increased use of cloud-based services	3	1
Increased employee awareness about cyberattacks	1	3
Digital transformation initiatives	6	2

WORLD ECONOMIC FORUM
Survey of 117 firms
Published January 2023

Data Protection Trends

Cyber threats listed as most challenging for 2023

veeam
Survey of 4,200 IT leaders
Published January 2023

Data Protection Trends

Cyberattacks maintain as most impactful outage

Outage Type	Most impactful 2020	Most impactful 2021	Most impactful 2022	All causes
Cybersecurity event	16%	15%	16%	53%
Infrastructure/networking outage	12%	14%	12%	52%
Accidental deletion, overwrite of data or data corruption	11%	14%	15%	49%
Application software outage	10%	10%	11%	53%

veeam
Survey of 4200 IT leaders
Published January 2023

Cloud Environment Security

Top Concerns on Data stored in Cloud Environment

Concern	Percentage
Lack of detection and response capabilities	53%
Exposure from compromised user	46%
Exposure from misconfiguration	45%
Inability to monitor changes	41%
Lack of prevention capabilities	39%
Exposure due to malicious insider	37%

CyberRisk ALLIANCE
Survey of 300 Security Practitioners
Published January 2023

Top IT Security Areas

Cloud Security are small firms target to invest at 45%

Area	Percentage
Network Security	47%
Cloud Security	45%
Cyber Insurance	36%
Email Security	29%
Endpoint Security	27%

datto
2,913 IT decision-makers at small firms
Published January 2023

Top General Detections

Trojan Viruses affected Home Users the most

Detection	Percentage
Trojans	31%
Unwanted Programs	30%
Hack Utilities	22%
Adware	8%
Miners	4%

ReasonLabs
Analysis of 2022 Global Data
Published January 2023

The Best Cyber Insights of 2023

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Cyber AI Predictions for 2023

Top 5 Causes for Cyber Concern from AI

- #1 = Transform security, risk & fraud
- #2 = Innovate attacks with generative AI
- #3 = Spear-phishing personalised by AI
- #4 = Social engineer with Deep Fakes
- #5 = Disinformation with Chatbots

SC MEDIA Predictions from Experts quoted by SC
Published December 2022

AI Cyber Attacks

Cyber Must Adapt to New Threats

Published Dec 2022

Open AI generates InfoSec

InfoSec Policies made by ChatGPT

Published Dec 2022

Open AI in Cyber

ChatGPT's AI Cyber Potential

Published December 2022

AI & ML use in Cyber Attacks

How Artificial Intelligence & Machine Learning helps

Reconnaissance 5 techniques	Resource Development 7 techniques	ML Model Access 4 techniques	Discovery 3 techniques	ML Attack Staging 4 techniques
Search for Victim's Publicly Available Research Materials	Acquire Public ML Artifacts	ML Model Inference API Access	Discover ML Model Ontology	Create Proxy ML Model
Search for Publicly Available Adversarial ML Attack Vulnerability Analysis	Obtain Capabilities	ML Enabled Product or Service	Discover ML Model Family	Backdoor ML Model
Search Victim-Owned Vectors	Develop Adversarial ML Attack Capabilities	Physical Environment Access	Discover ML Artifacts	Verify Attack
Search Application Repositories	Acquire Infrastructure	Full ML Model Access		Craft Adversarial Data
Active Scanning	Publish Poisoned Datasets			
	Poison Training Data			
	Establish Accounts			

MITRE Based on observations & security groups
Published December 2022

How Open AI is Trained

ChatGPT learns from its dialogue with you

kenovy OpenAI Published December 2022

Cyber Predictions for 2023

Top 5 Causes for Cyber Concern in 2023

- #1 = Shadow APIs lead to breaches
- #2 = MFA becomes ineffective
- #3 = Cloud Apps unsecured
- #4 = Open Source Software targeted
- #5 = Ransoms rise up political agendas

IF5 Predictions from Industry Experts at F5
Published December 2022

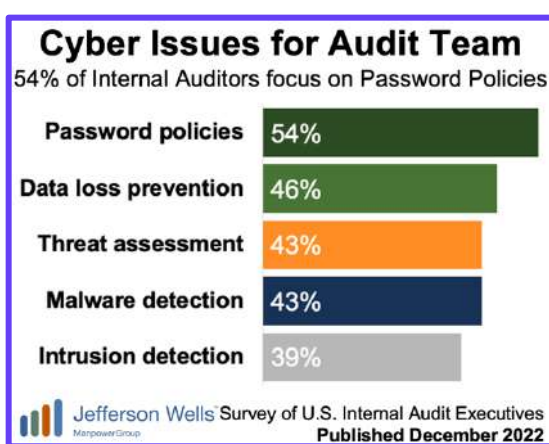
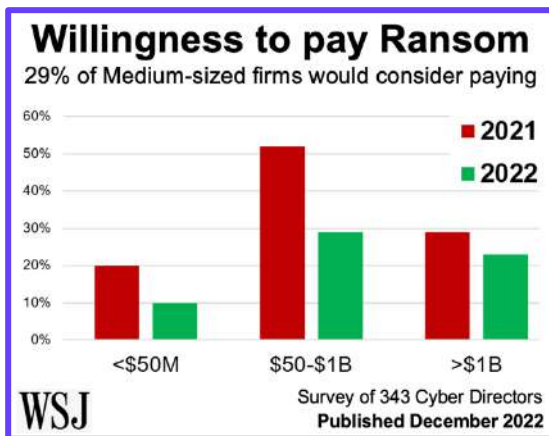
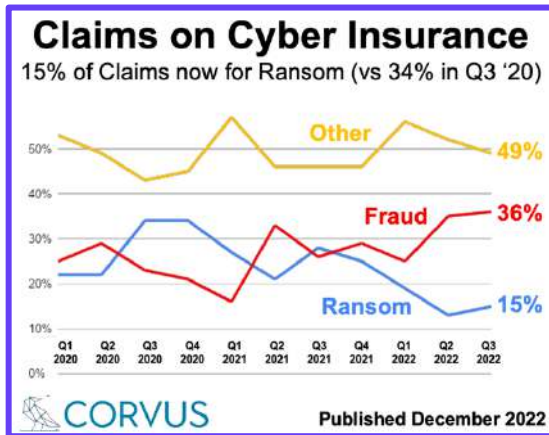
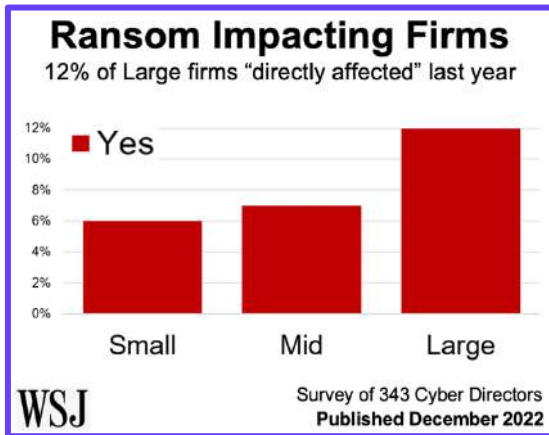
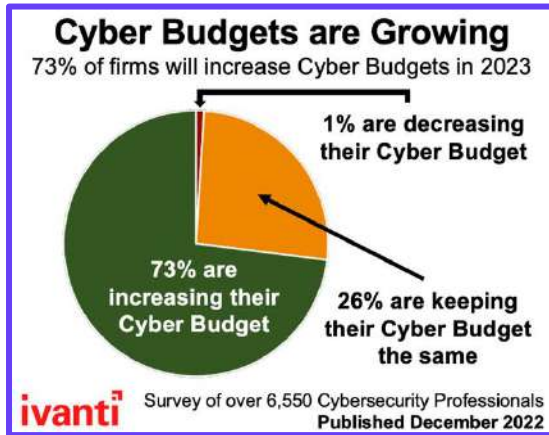
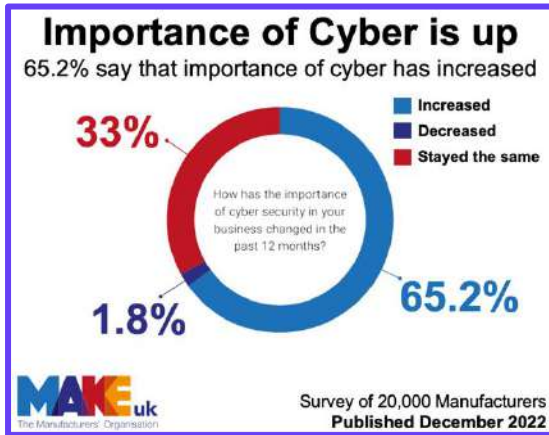
Managing Cyber Security

Click for list of 10 main processes from NIST & ISO

NIST Published January 2023

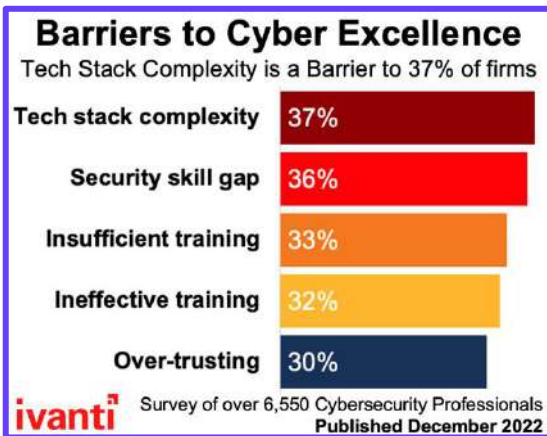
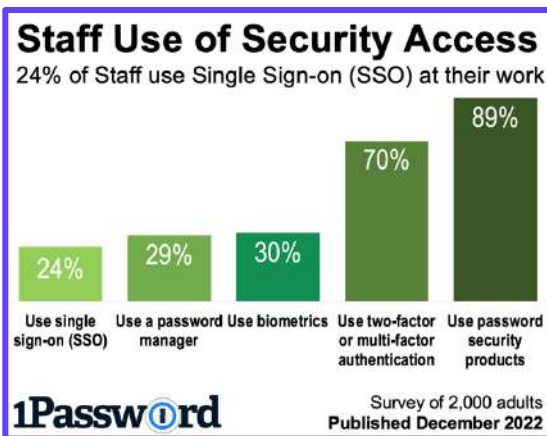
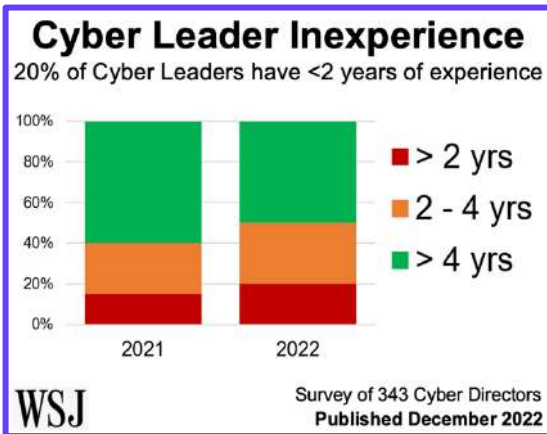
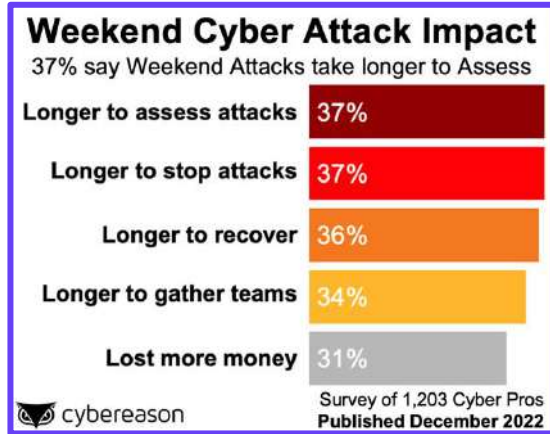
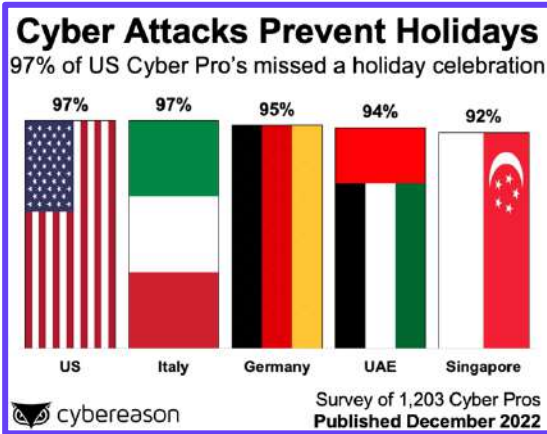
Cyber Insights: *Cyber & Finance Dept*

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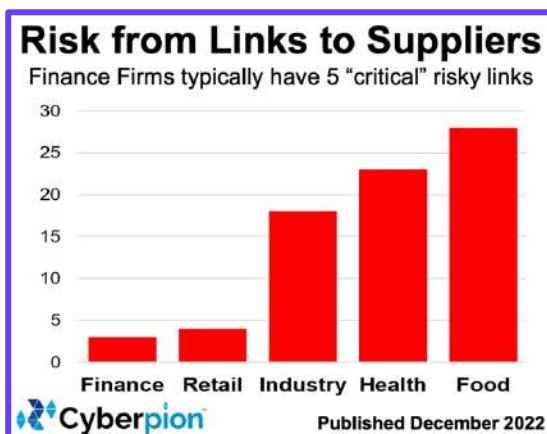
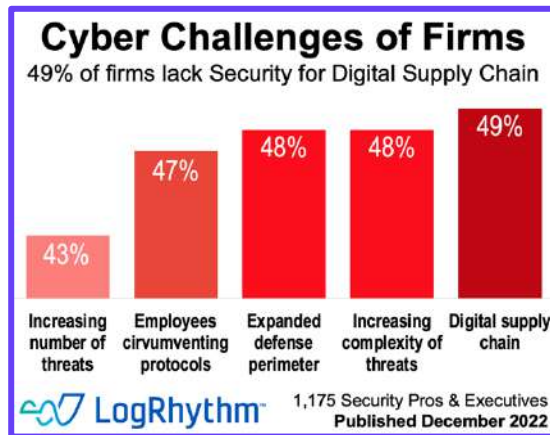
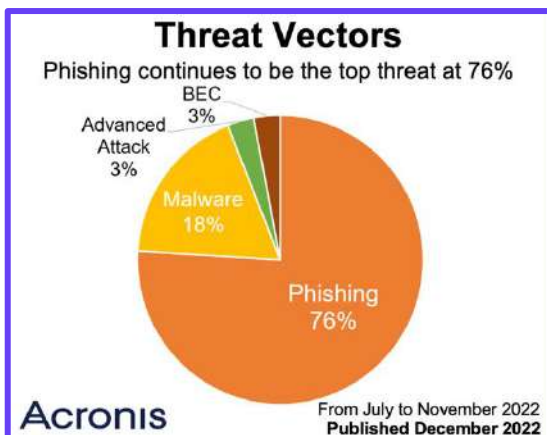
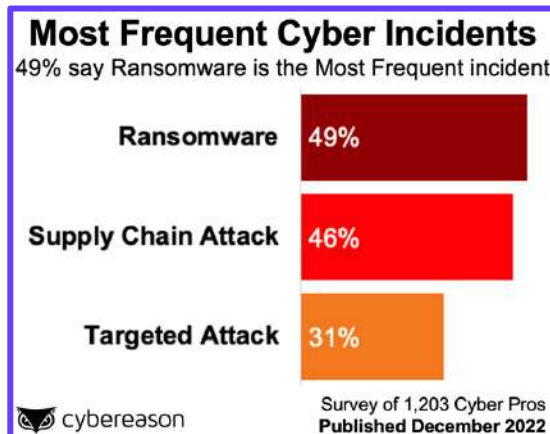
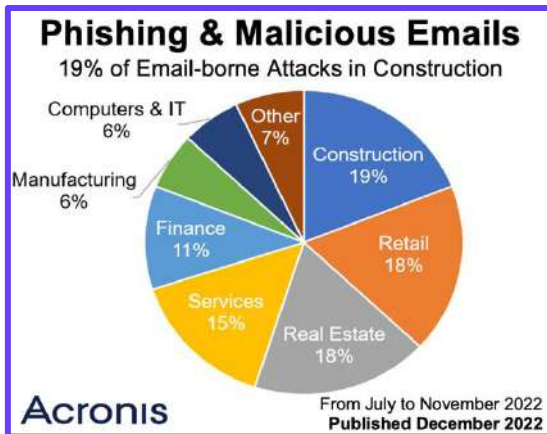
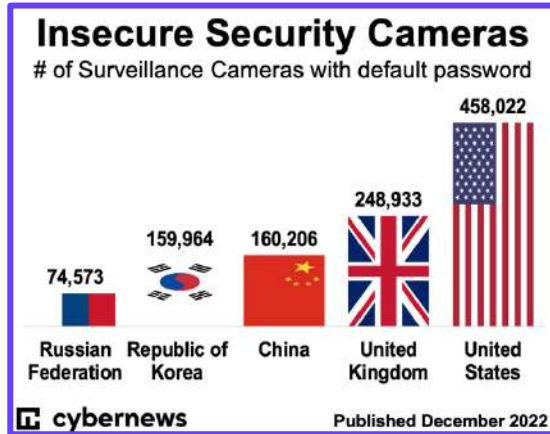
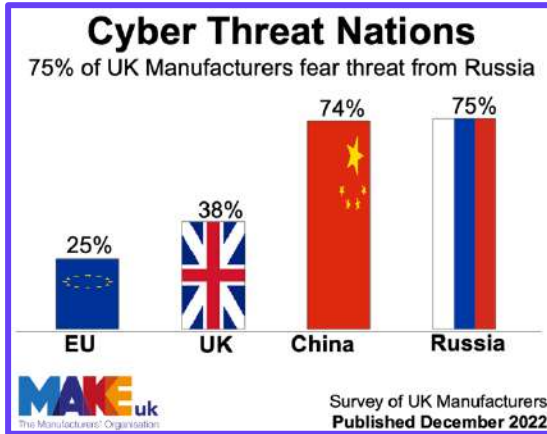
Cyber Insights: *Cyber Humans*

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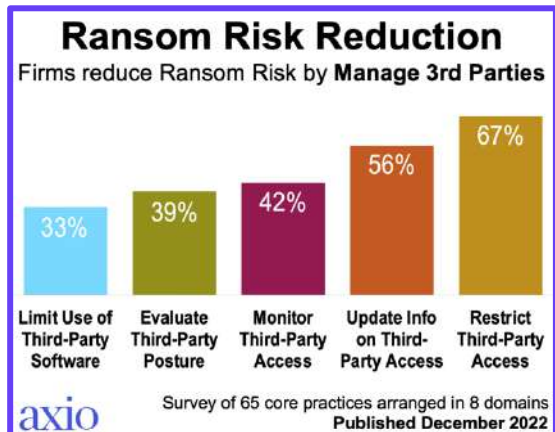
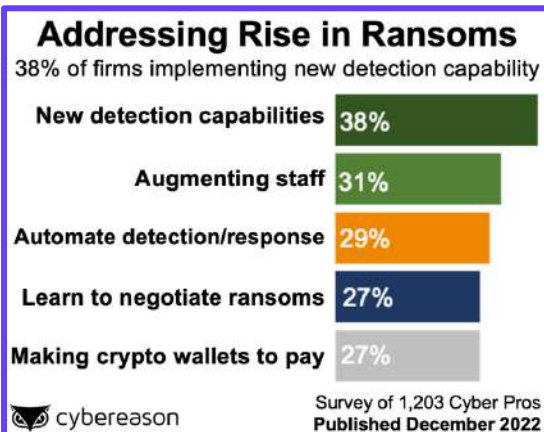
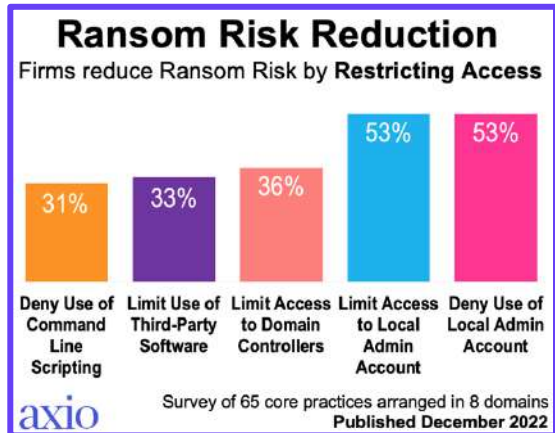
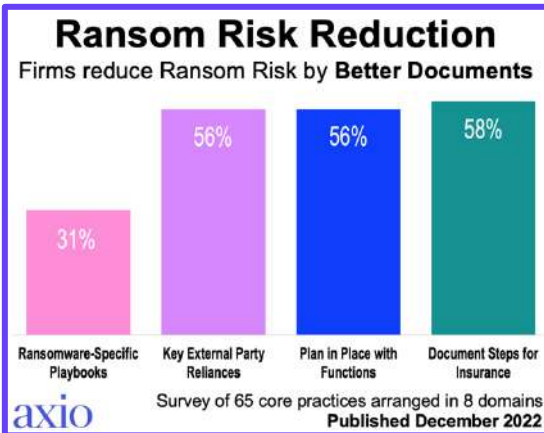
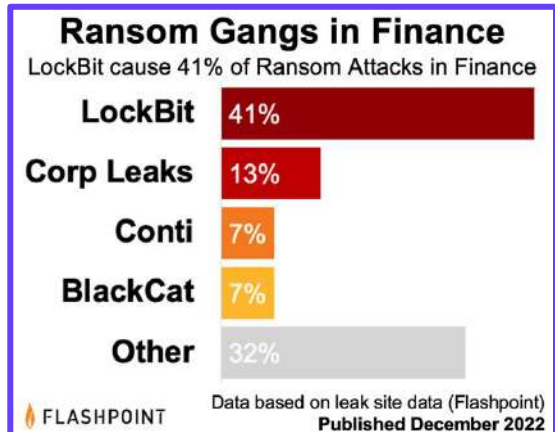
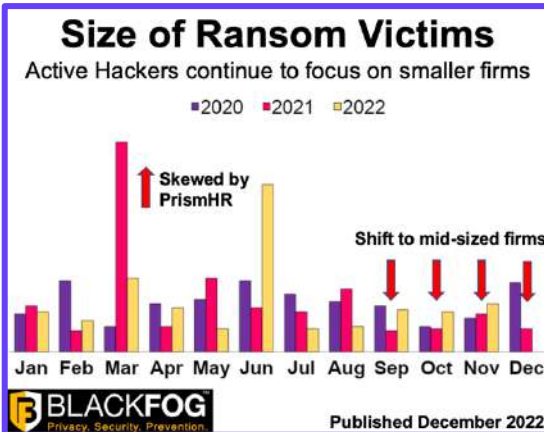
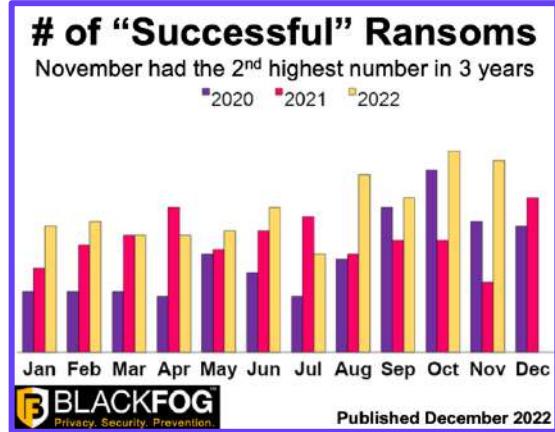
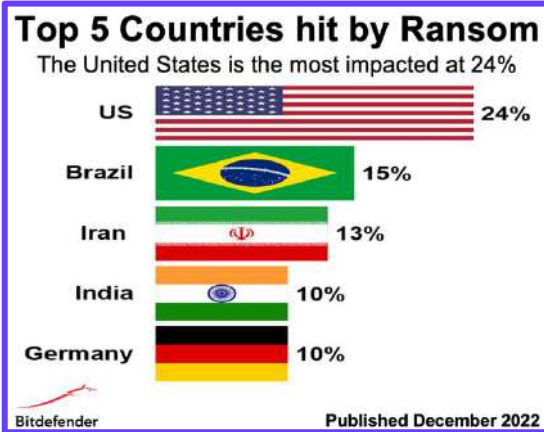
Cyber Insights: *Cyber Trends*

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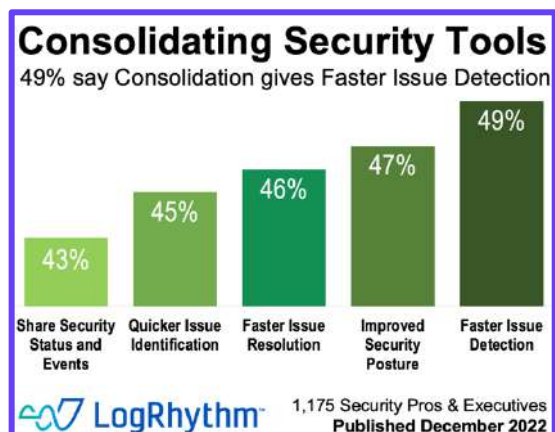
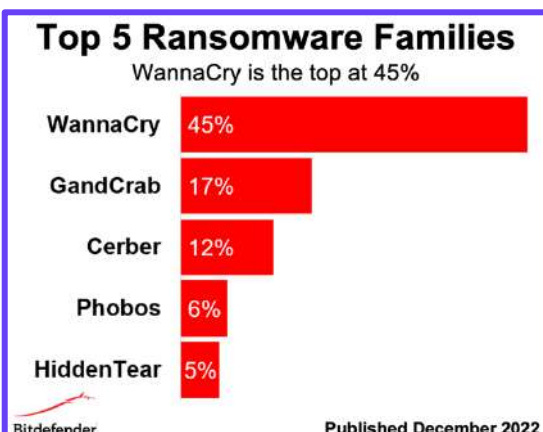
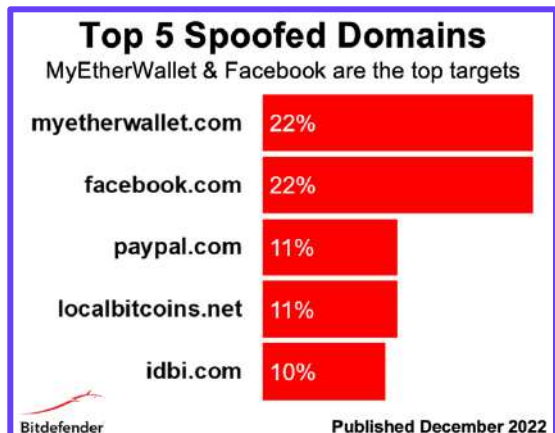
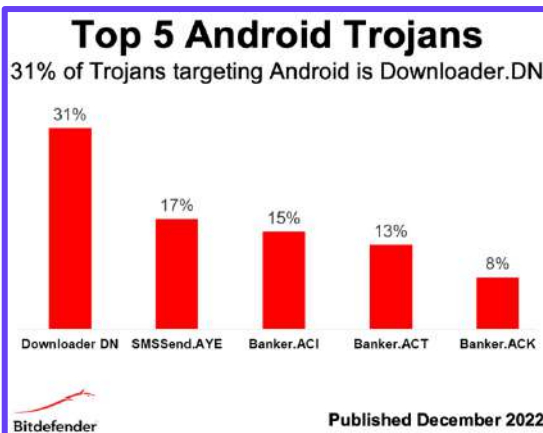
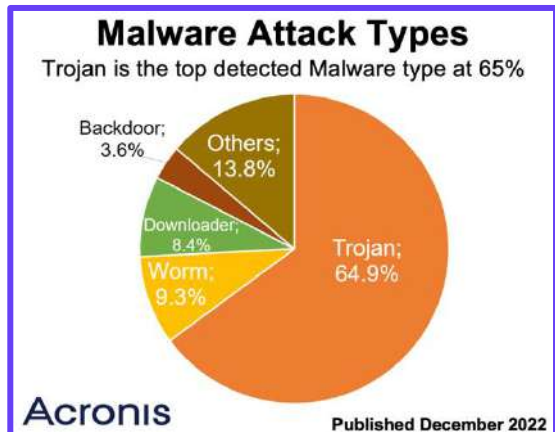
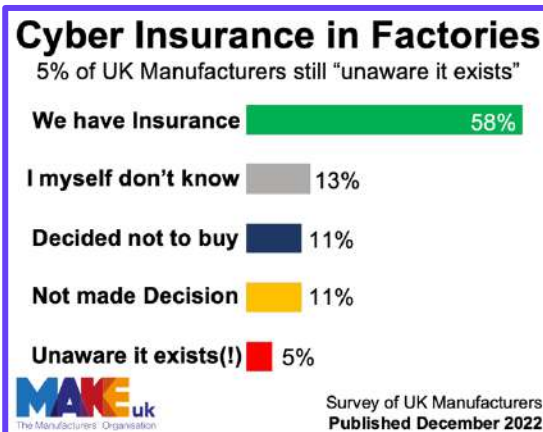
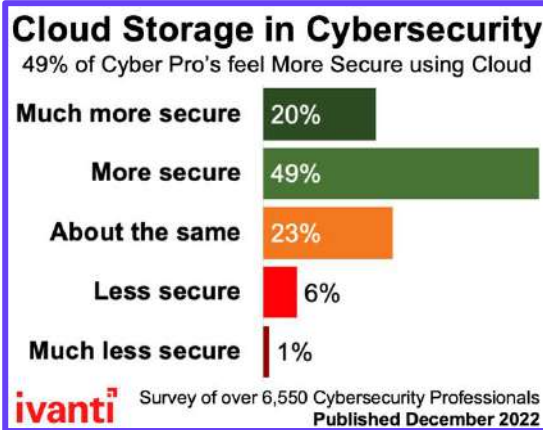
Cyber Insights: *Ransomware*

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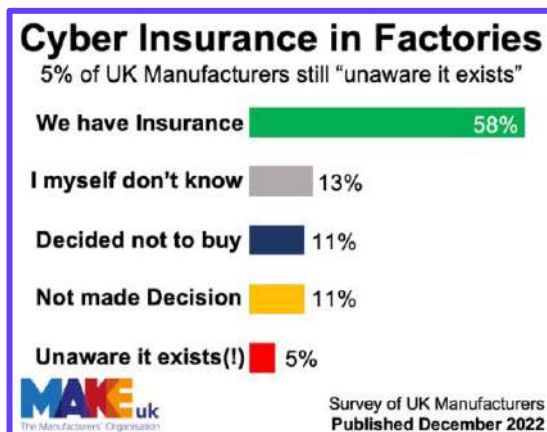
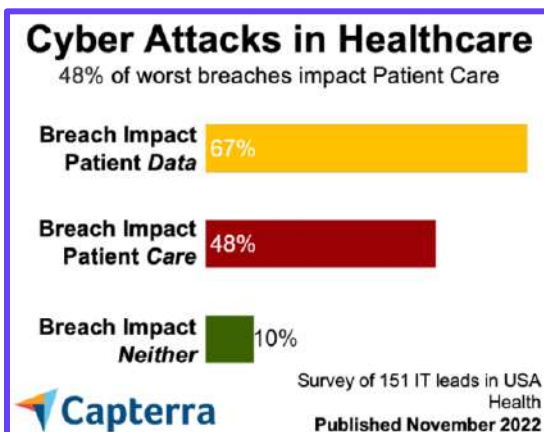
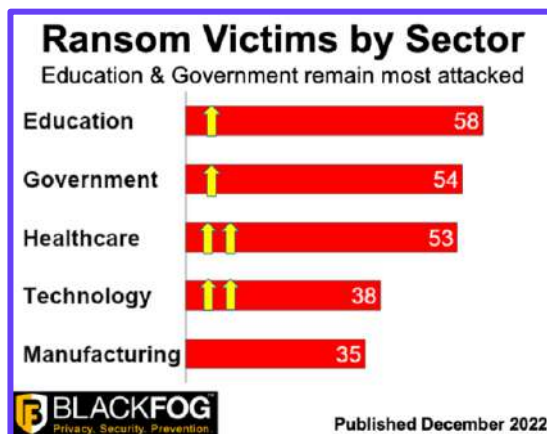
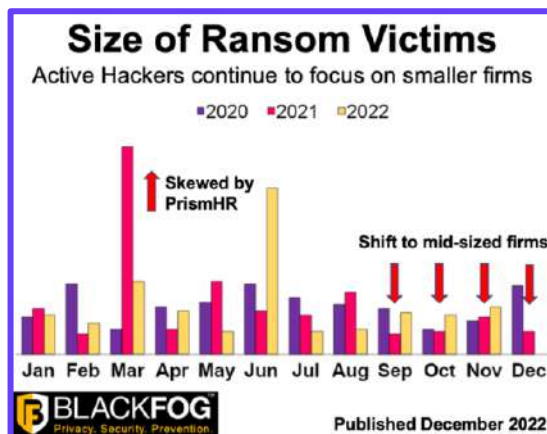
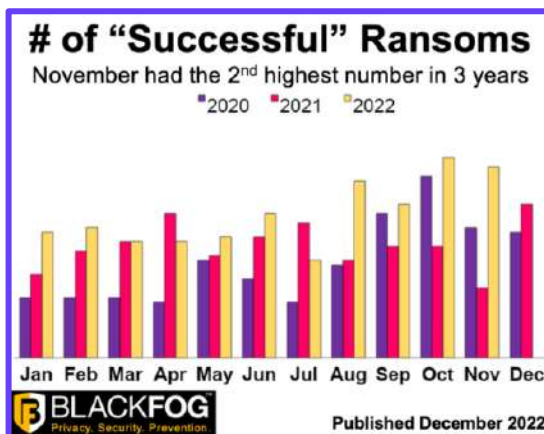
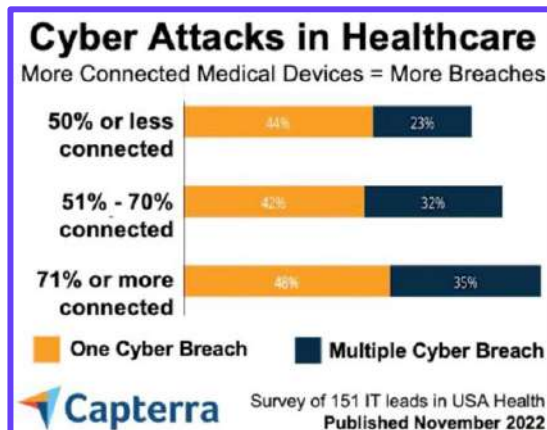
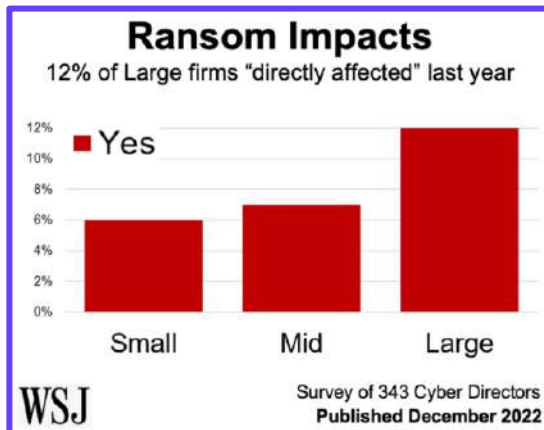
Cyber Insights: *Cyber Trends*

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The Best Cyber Insights of 2022

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The Best Cyber Insights of 2022

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INTERPOL's Crime Forecast

Ransomware is "crime most likely to increase"

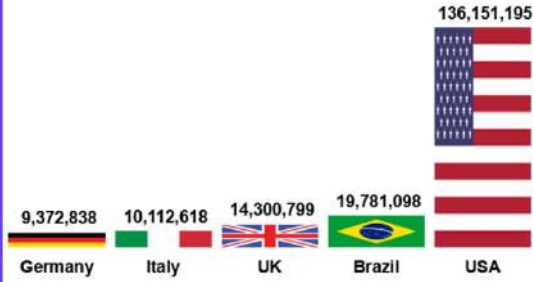
- #1 = Ransomware
- #2 = Phishing & Online Scams
- #3 = Online Child Sexual Abuse
- #4 = Business Email Compromise
- #5 = Computer Intrusion



Global Survey of Police Forces
Published November 2022

Ransom "Attacks" Volume

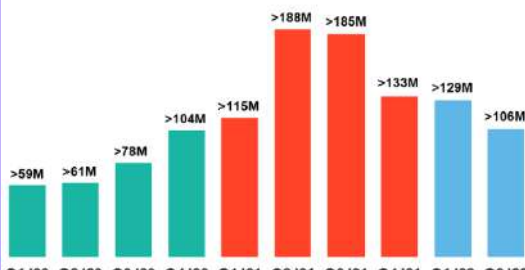
136 million Ransom attempts on US Firms this year



SONICWALL
Published November 2022

Ransom "Attacks" Volume

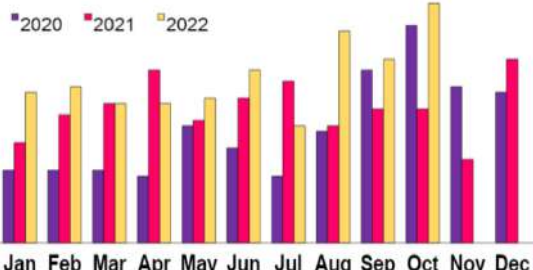
Good News as ransom attack volumes are declining



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Ransom "Success" Volume

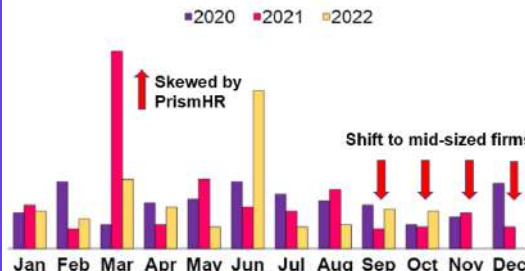
Last month had most Ransom "successes" ever



BLACKFOG
Published November 2022

Size of Ransom Victim Firms

Active Hackers continue to focus on smaller firms



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Ransom Redress

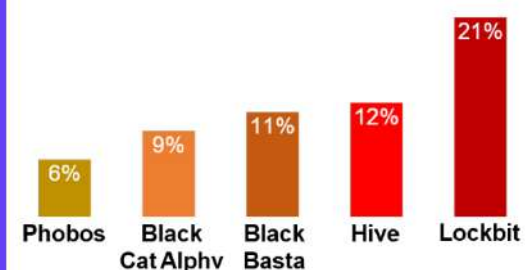
27% are learning to negotiate with Ransom Actors

Staff Augmentation	31%
Auto-Detection	29%
Ransom Negotiation	27%
Payment Mechanisms	27%

cybereason
Survey of 700 Cybersecurity Professionals
Published November 2022

Top Ransomware Gangs

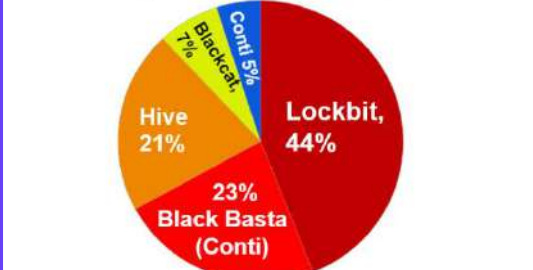
Lockbit is responsible for most "successful" attacks



KROLL
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Top 5 Ransomware Gangs

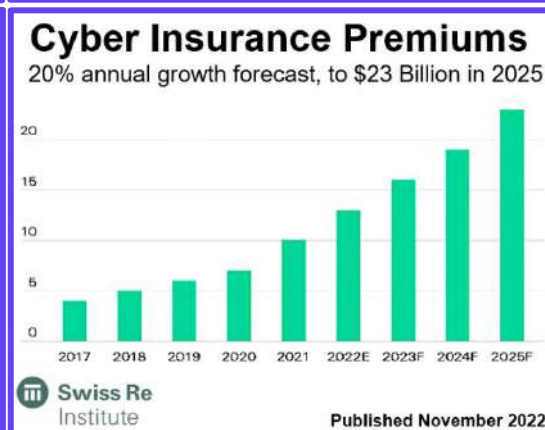
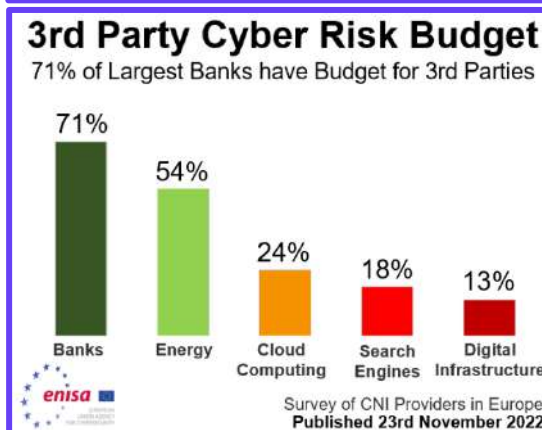
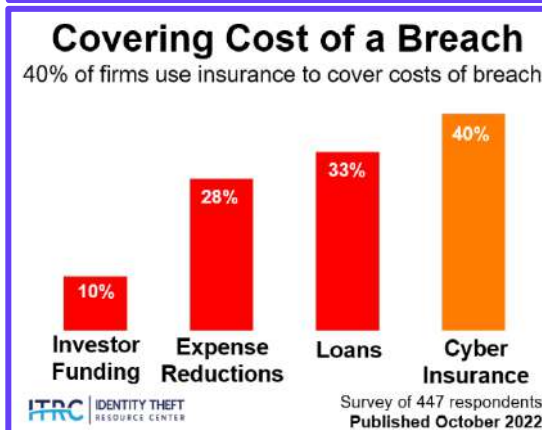
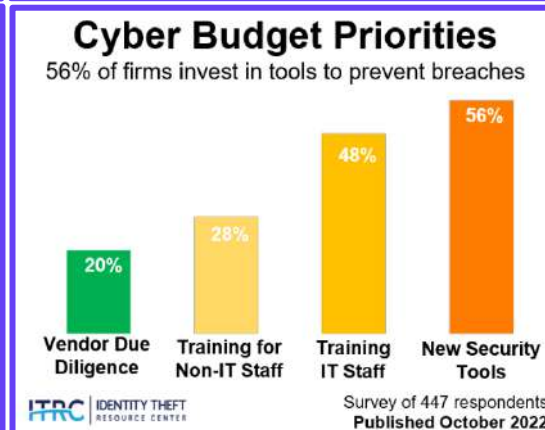
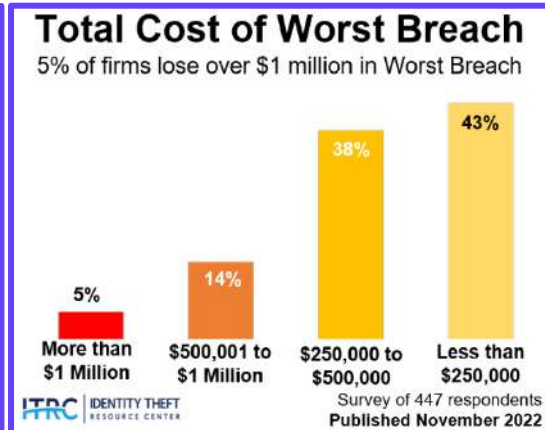
Lockbit is responsible for most "successful" attacks



deepinstinct
Analysis of Deep Instinct Data
Published November 2022

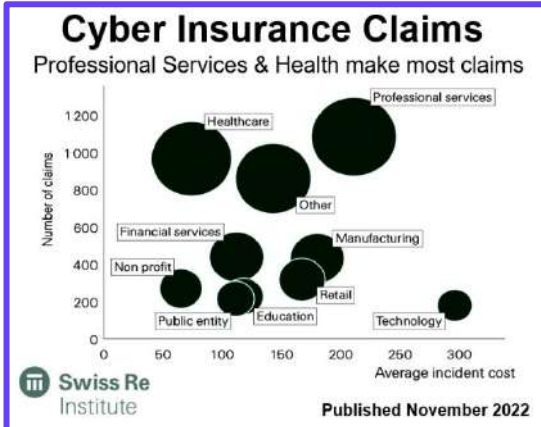
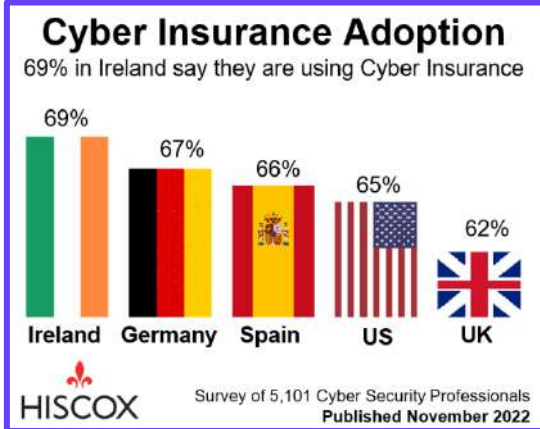
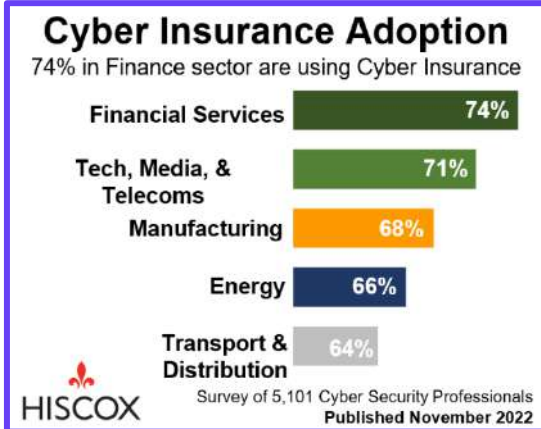
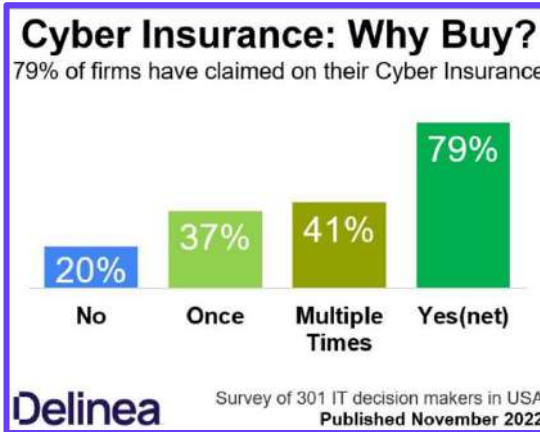
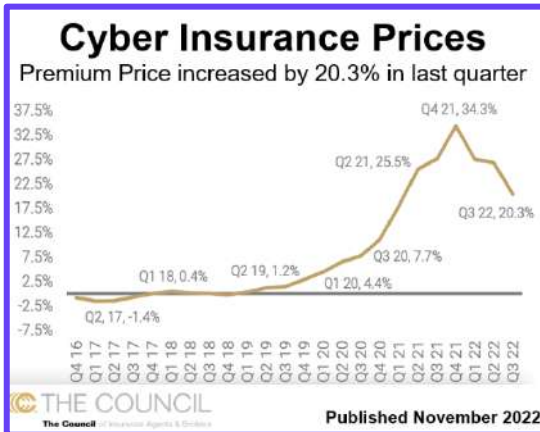
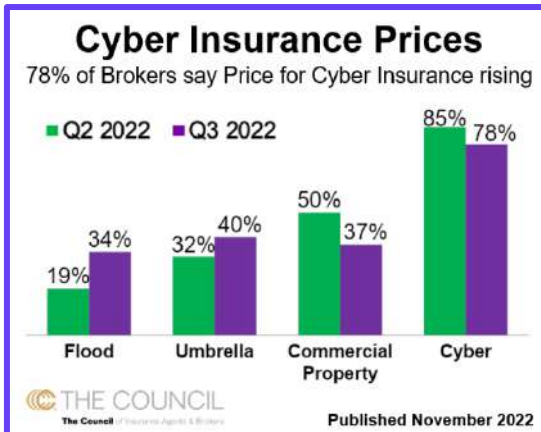
Cyber Insights: *Cyber Finances*

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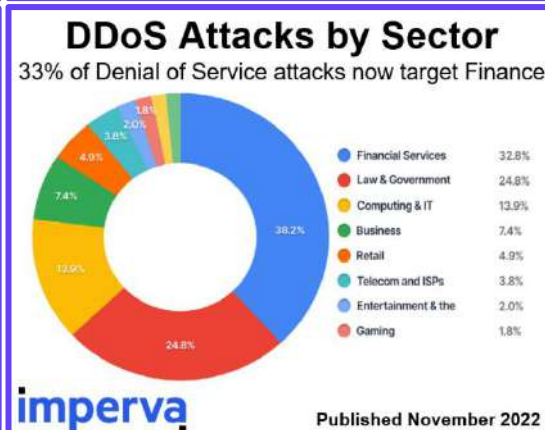
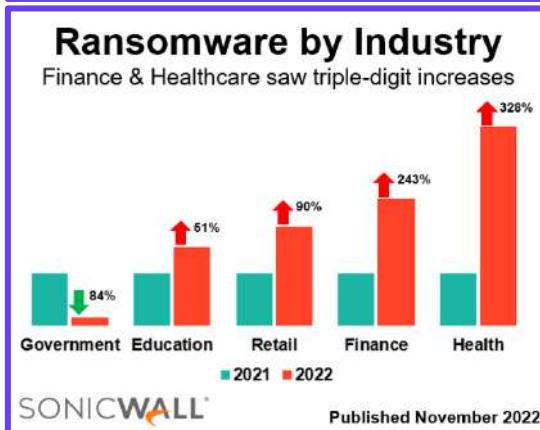
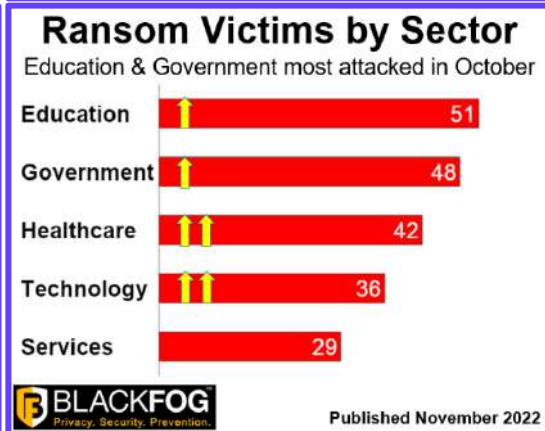
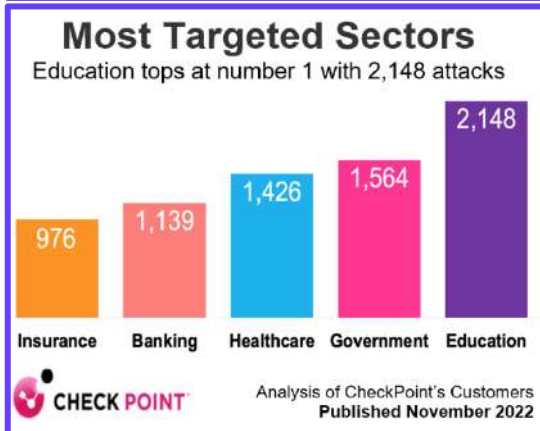
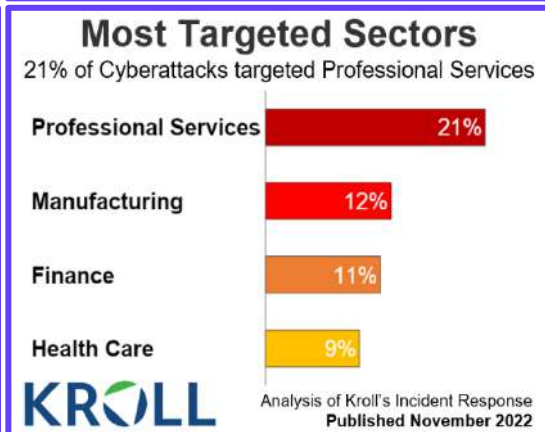
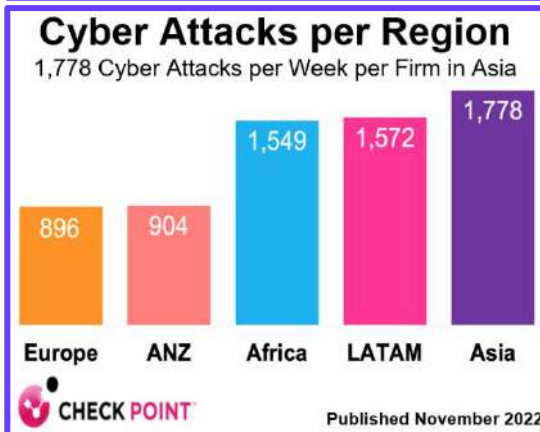
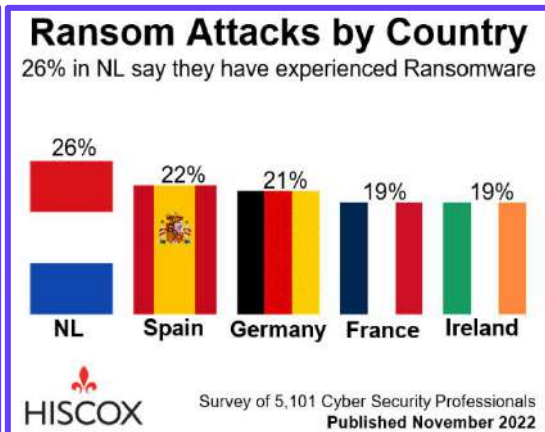
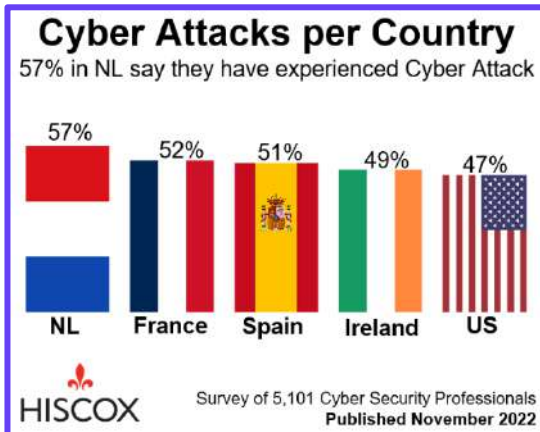
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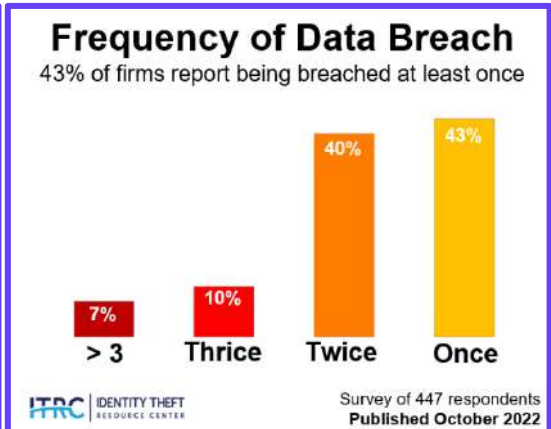
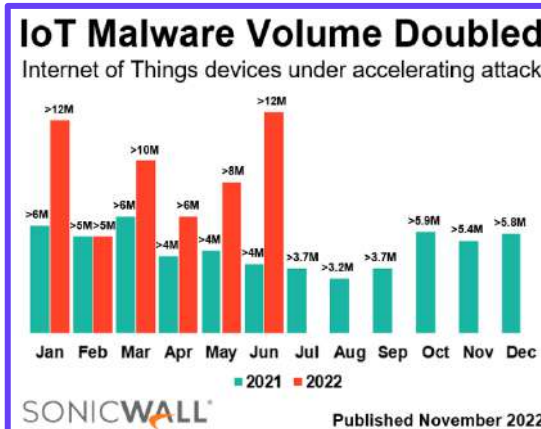
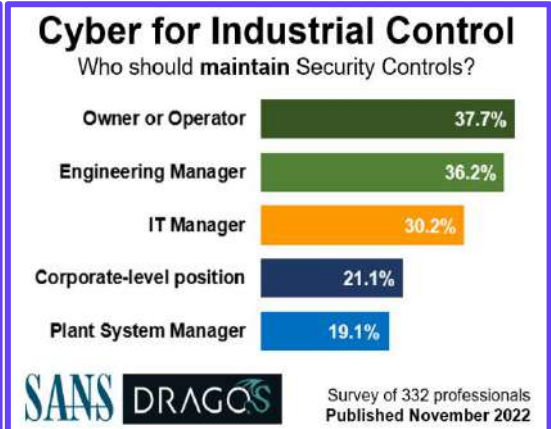
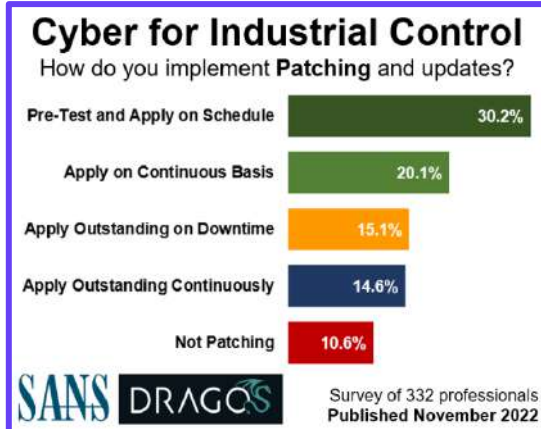
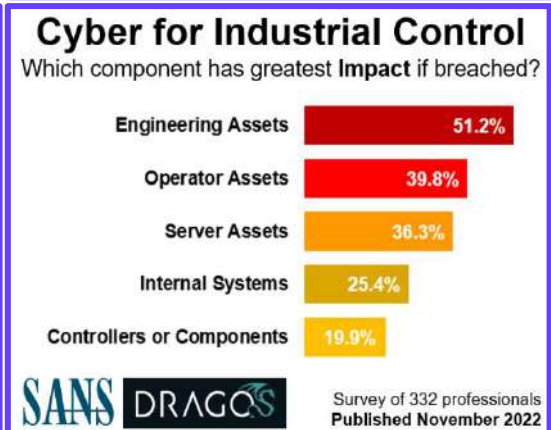
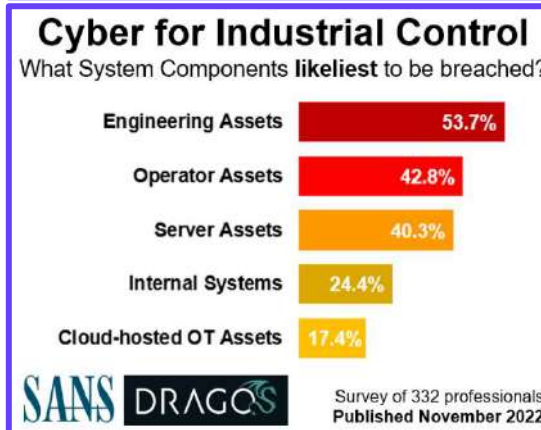
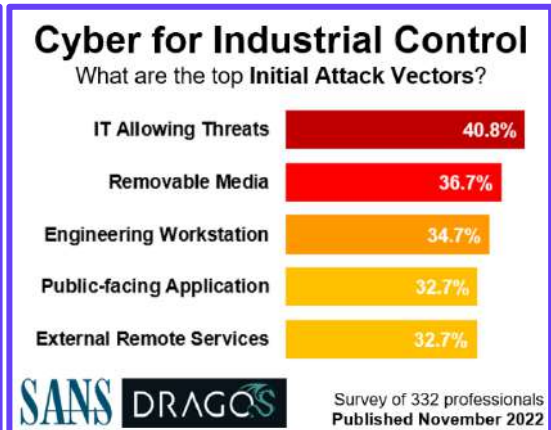
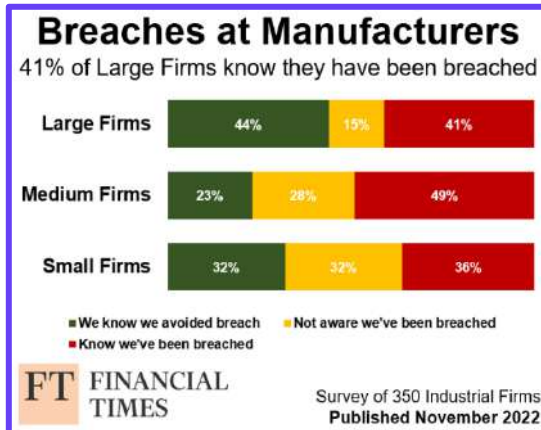
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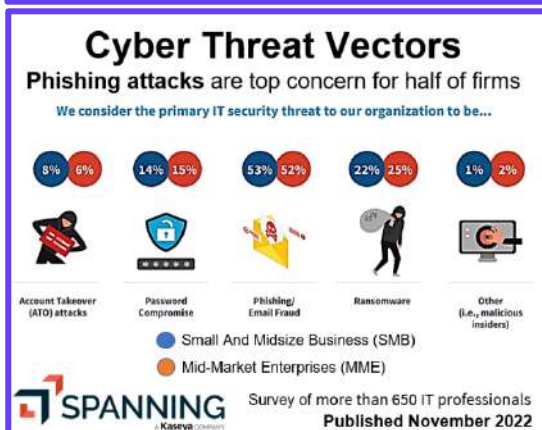
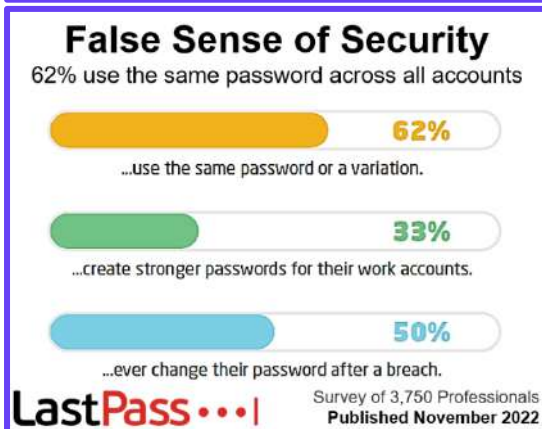
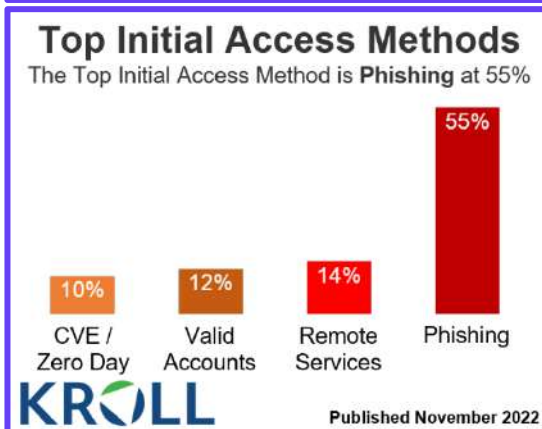
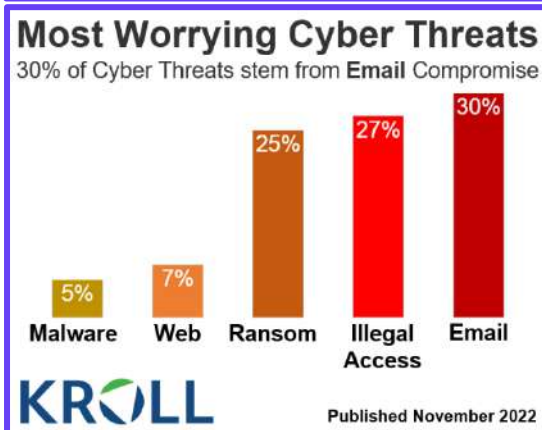
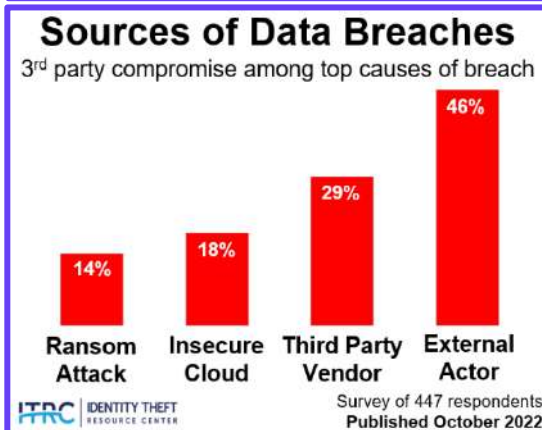
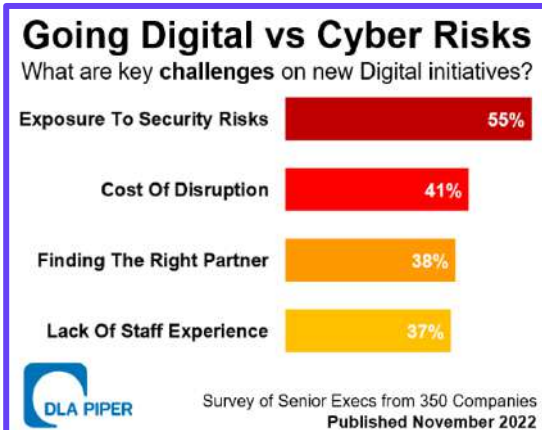
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Published November 2022 Adversaries for 2023

ACSC Annual Cyber Threat Report
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Published Nov '22 Exercises for Decision-Making

Triage Cyber Vulnerabilities
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Cyber Performance Goals
Published Nov '22 Official Best Practice for USA Firms

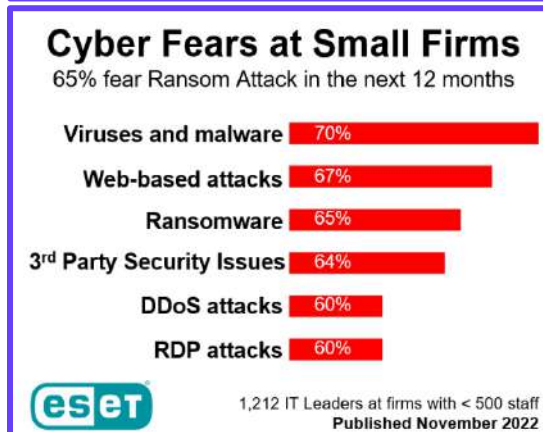
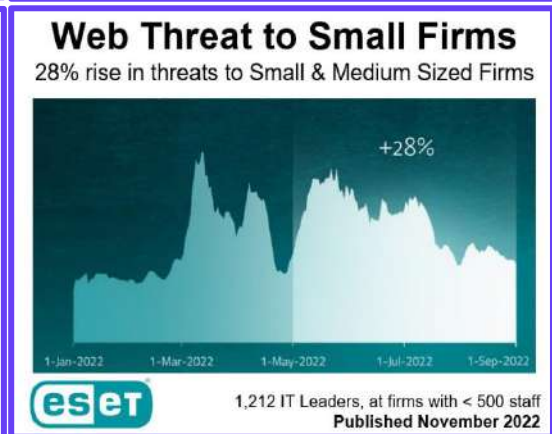
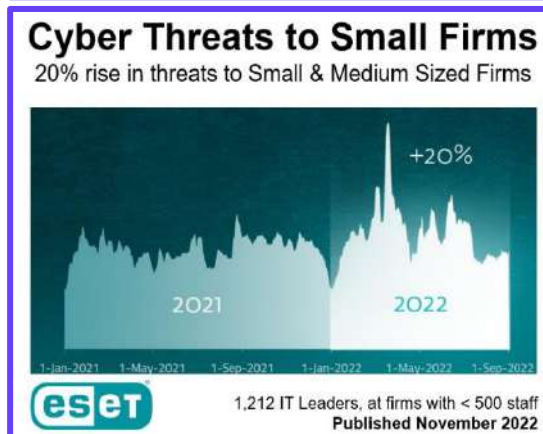
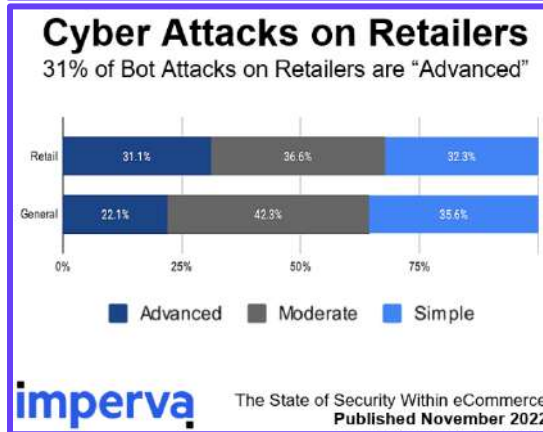
German Cyber Security
Published Oct 2022 Annual Review

enisa Cyber Threat Landscape
Published Nov 2022 Annual Review

TEAMS CISO Guide
Published Nov 2022 Legal Risks & Liabilities

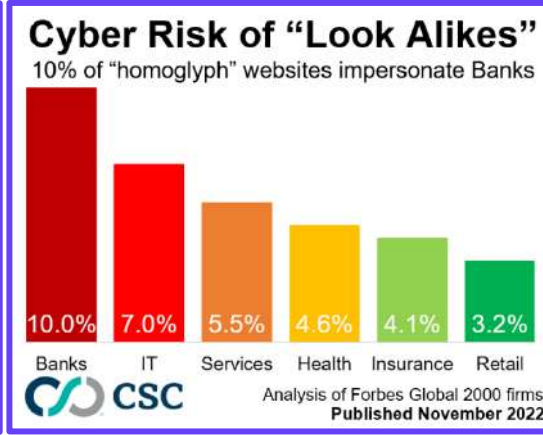
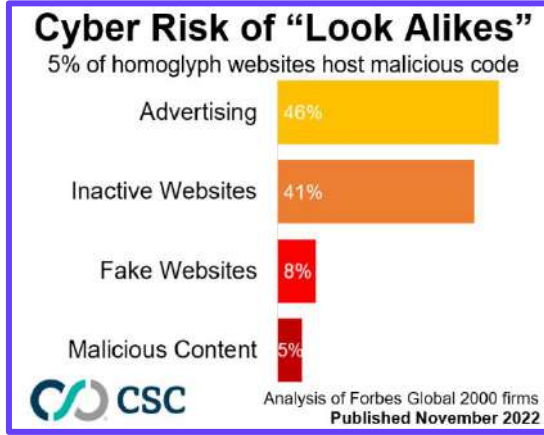
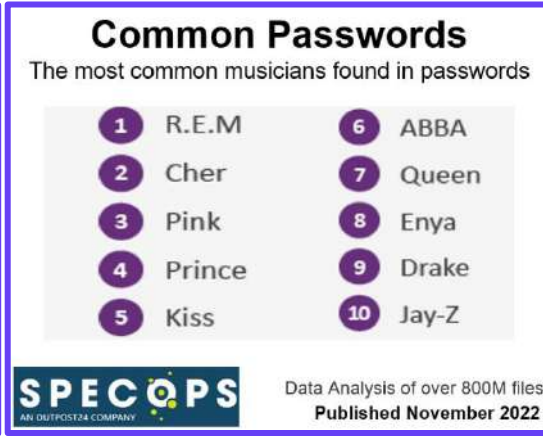
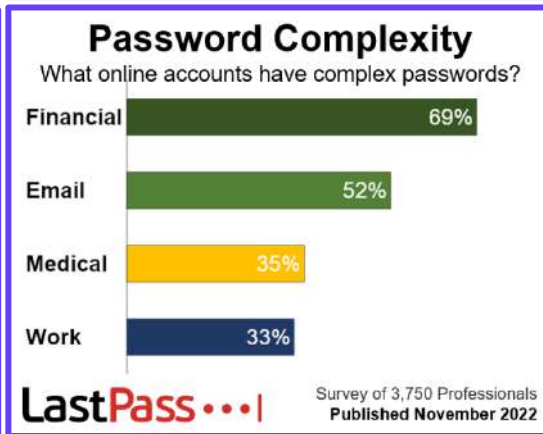
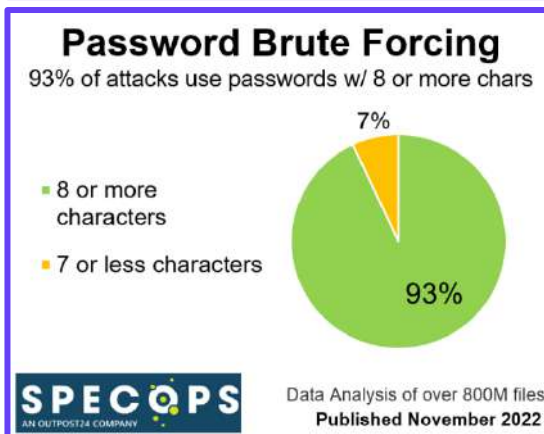
Cyber Insights: *Retailers & Small Firms*

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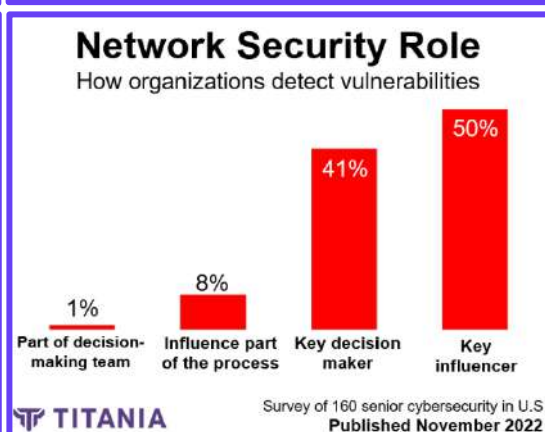
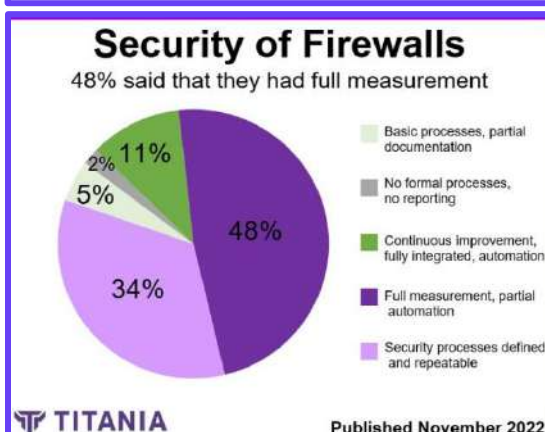
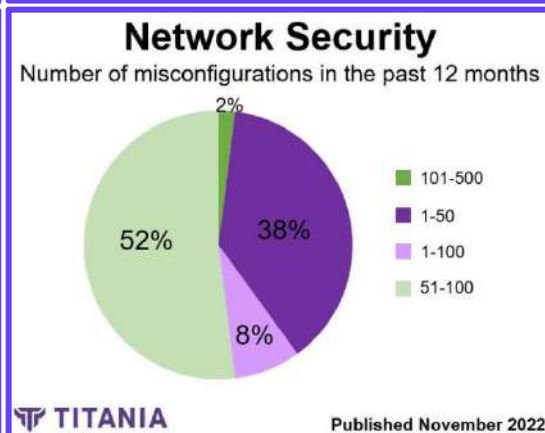
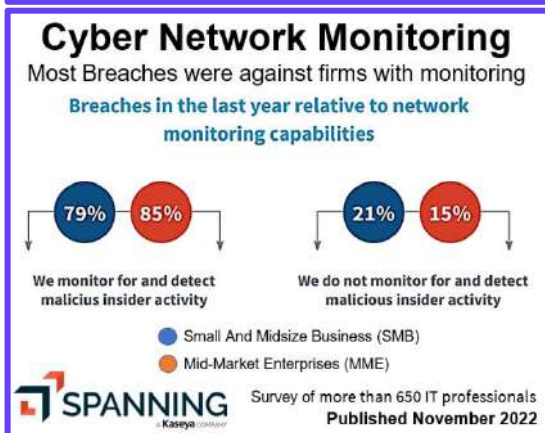
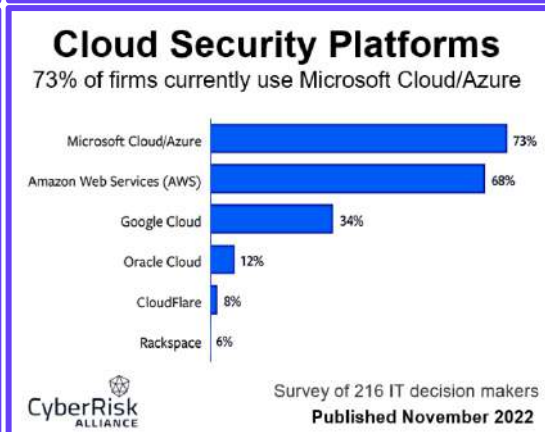
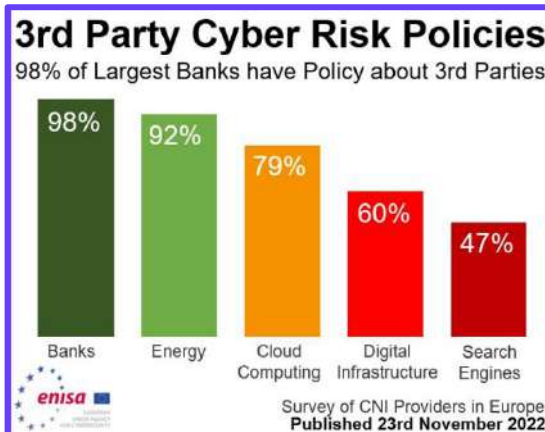
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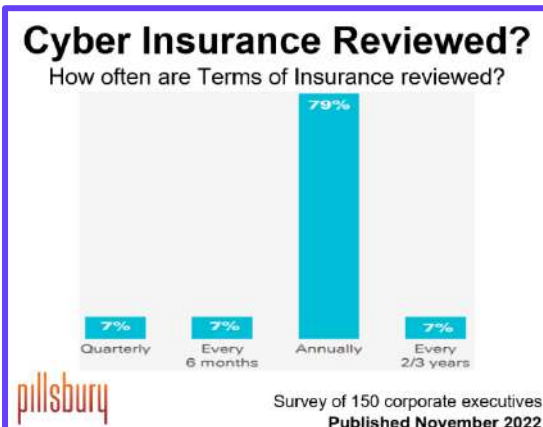
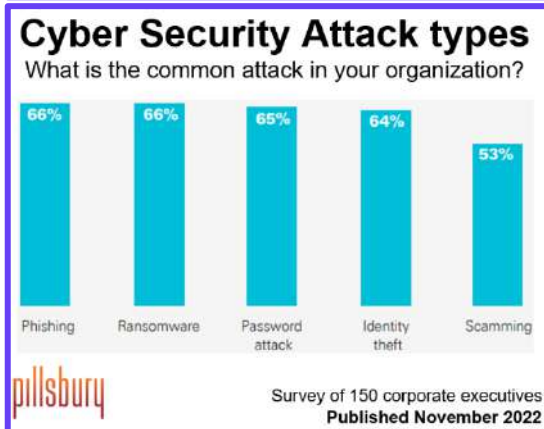
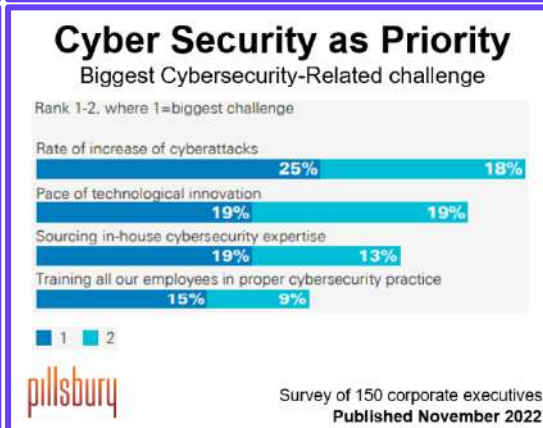
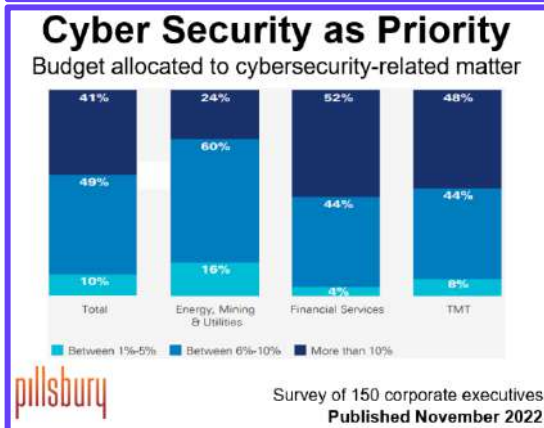
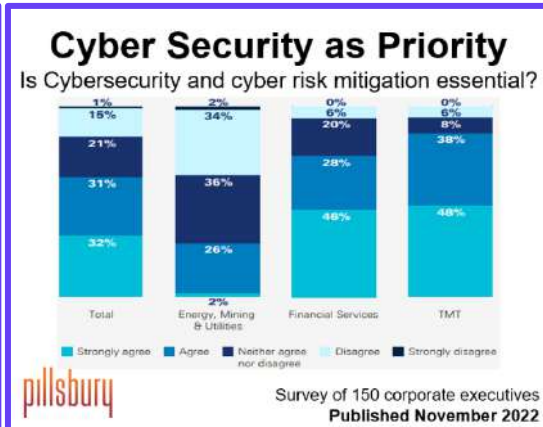
Cyber Insights: *Clouds & Networks*

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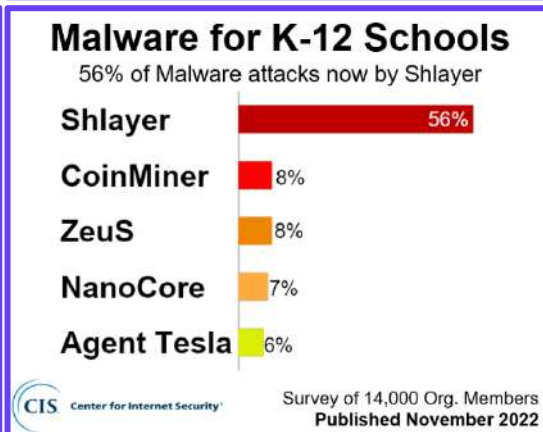
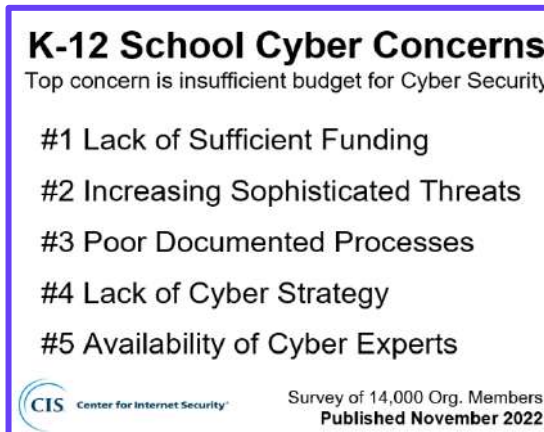
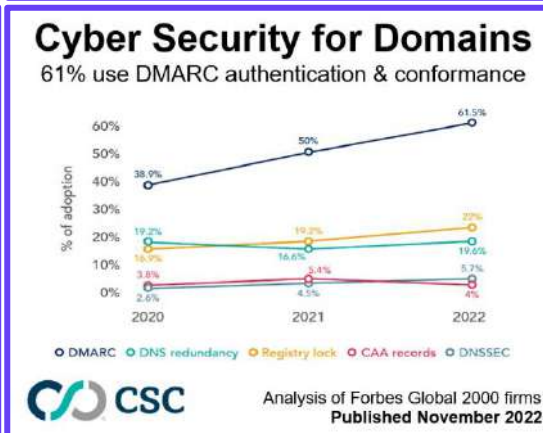
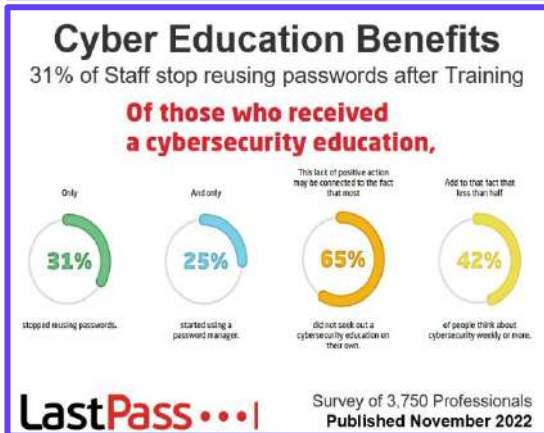
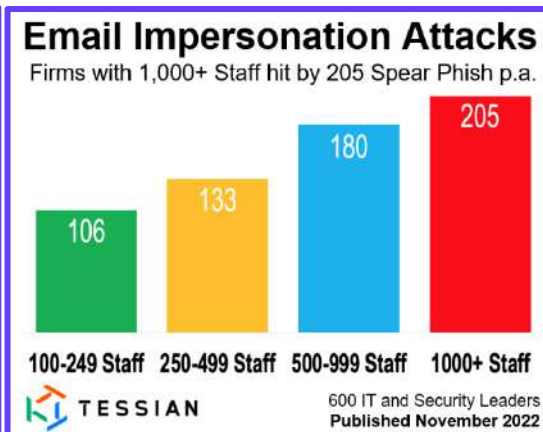
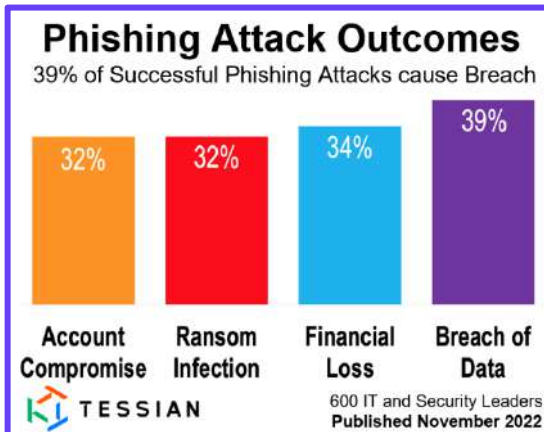
Cyber Insights: *Cyber Security Priortisation*

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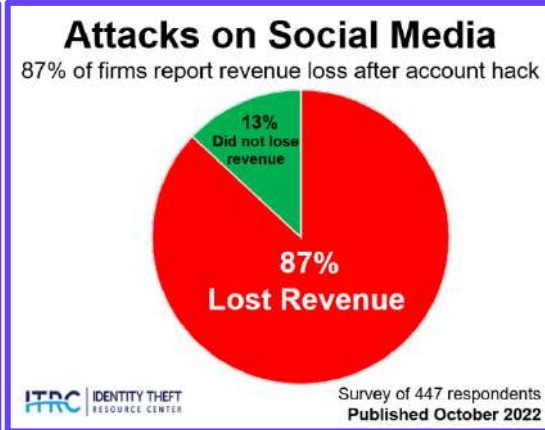
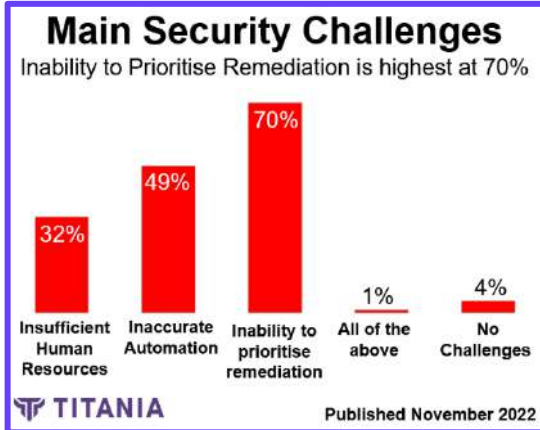
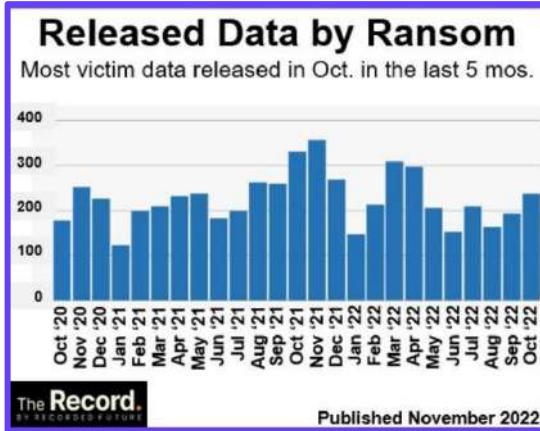
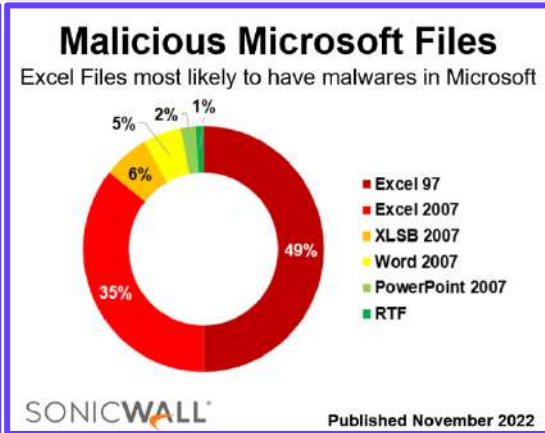
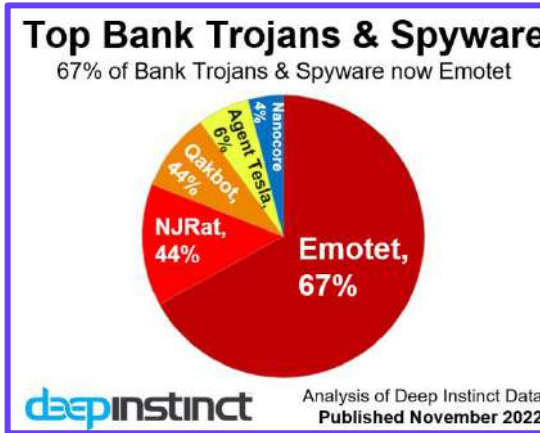
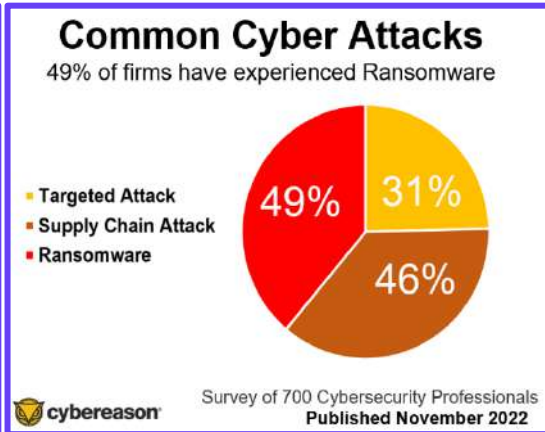
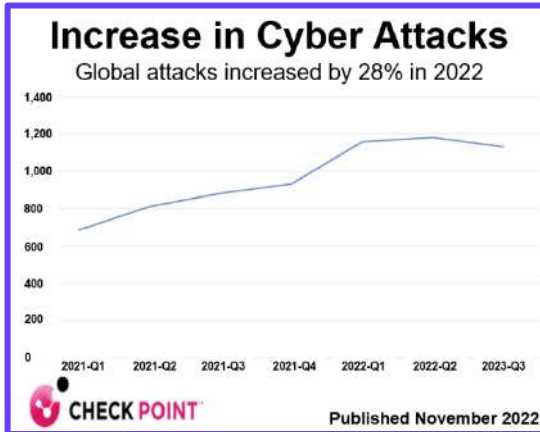
Cyber Insights: *Phishing & Malware*

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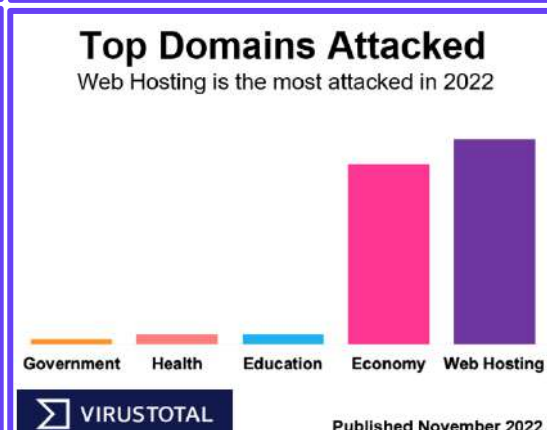
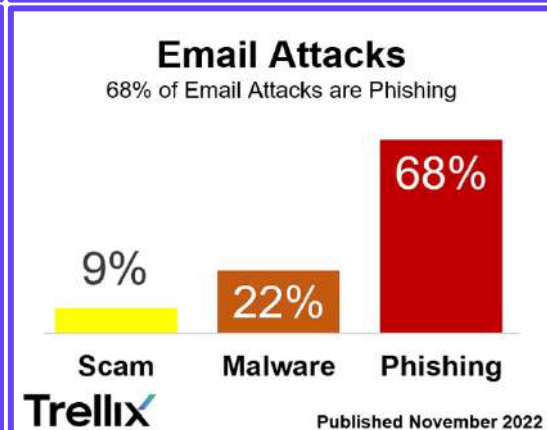
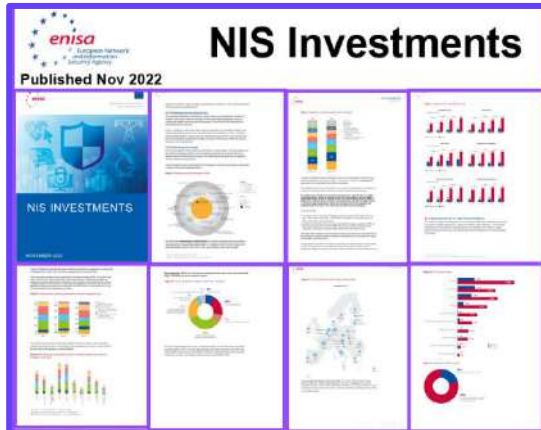
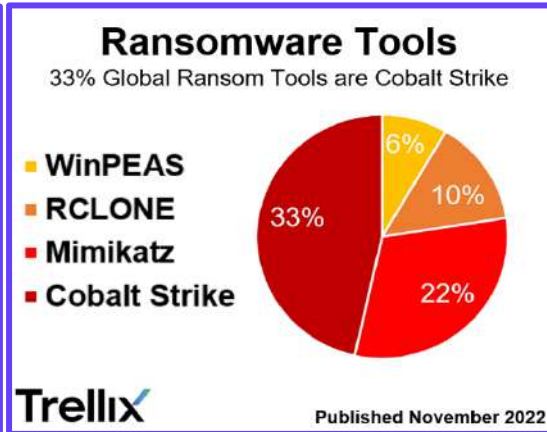
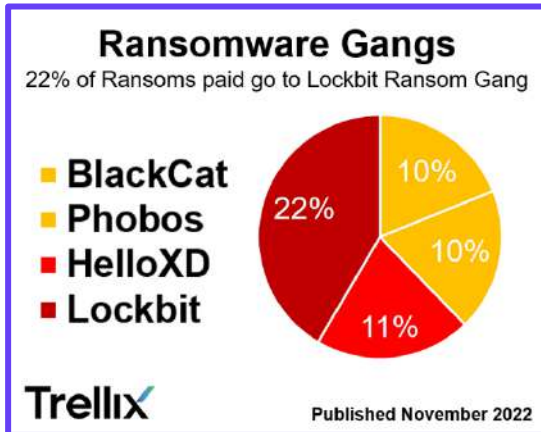
Cyber Insights: *Cyber Attacks*

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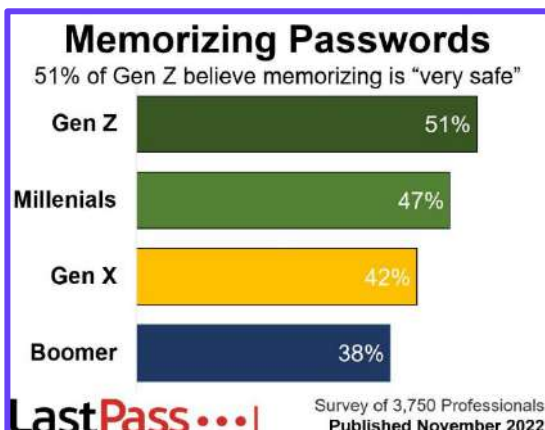
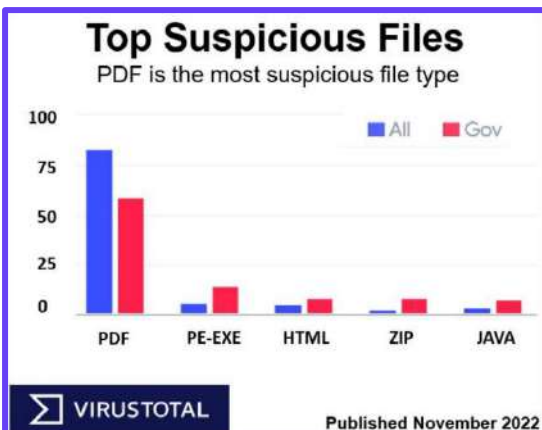
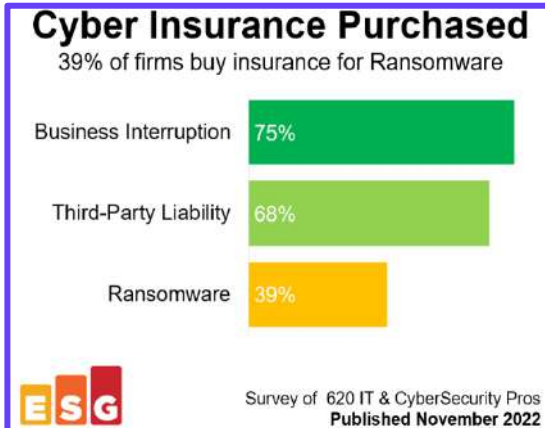
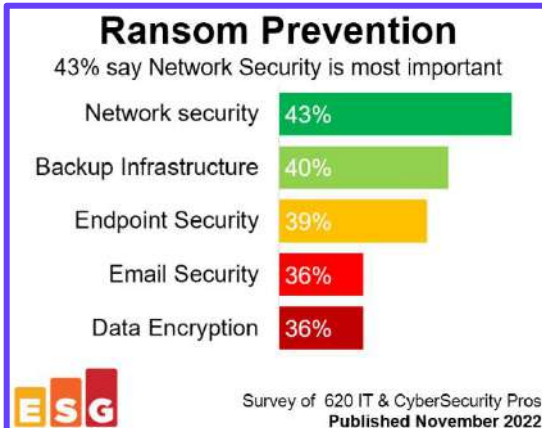
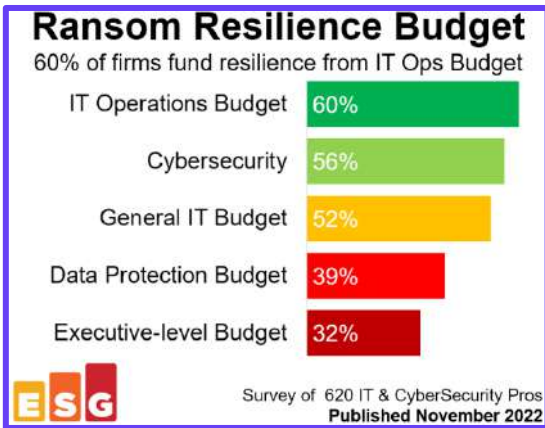
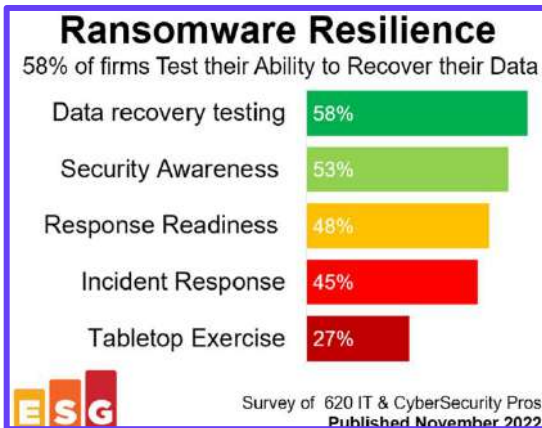
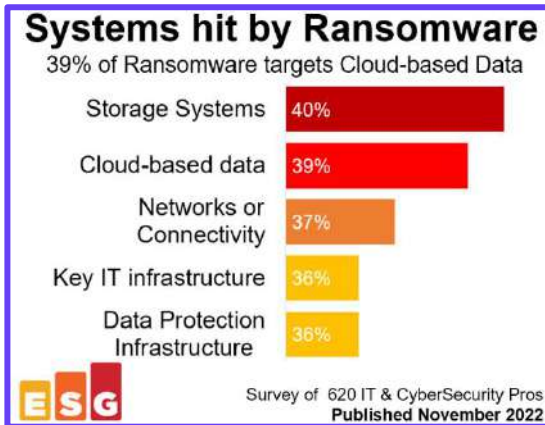
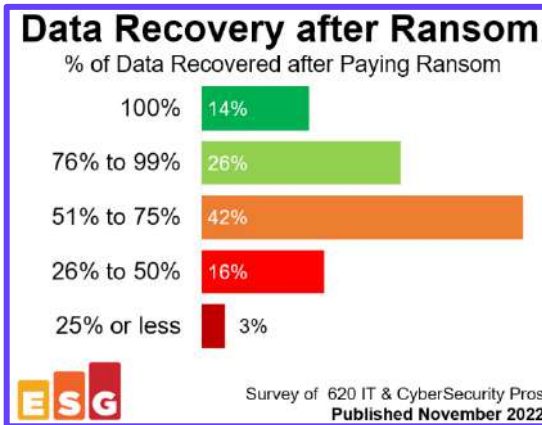
Cyber Insights: *Cyber Finances*

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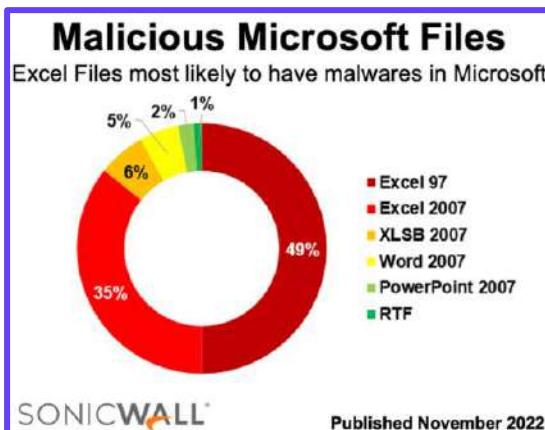
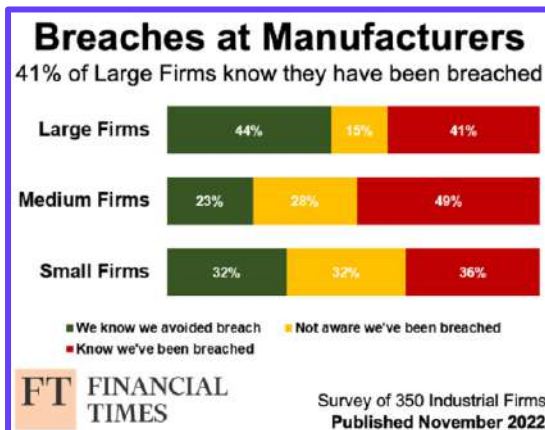
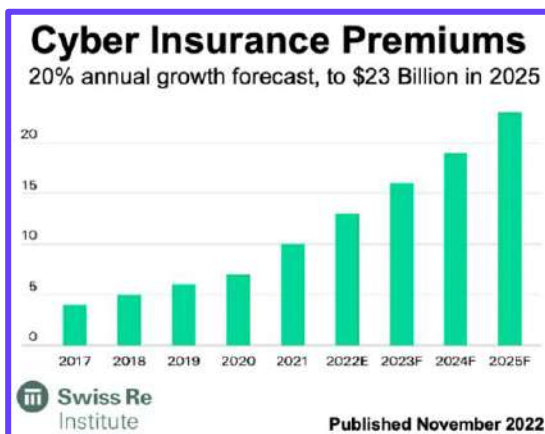
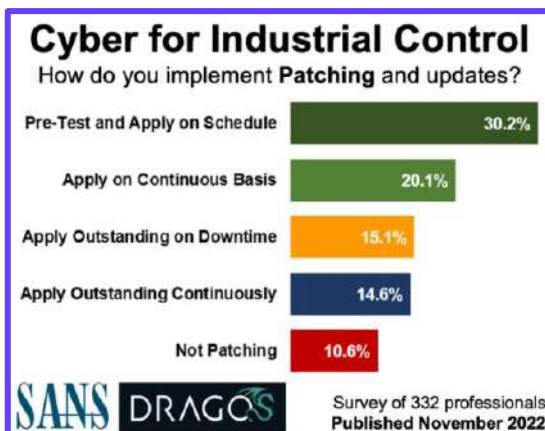
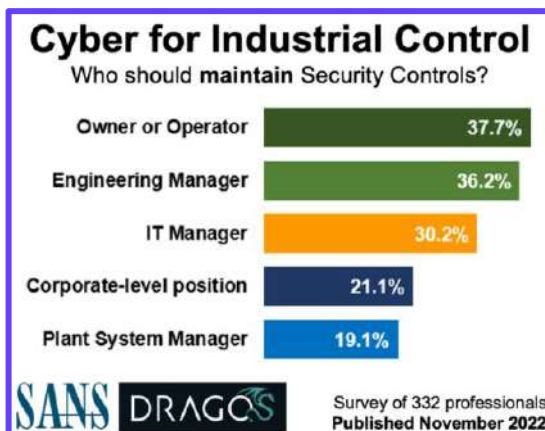
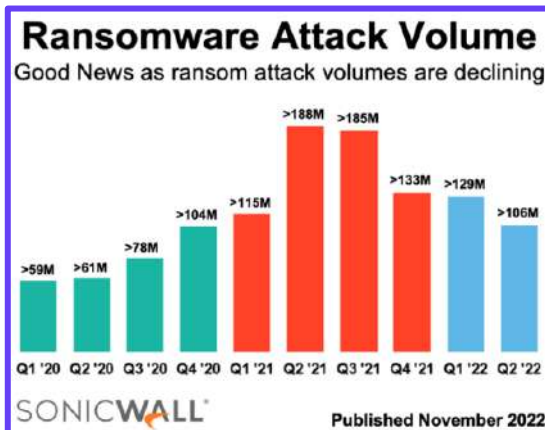
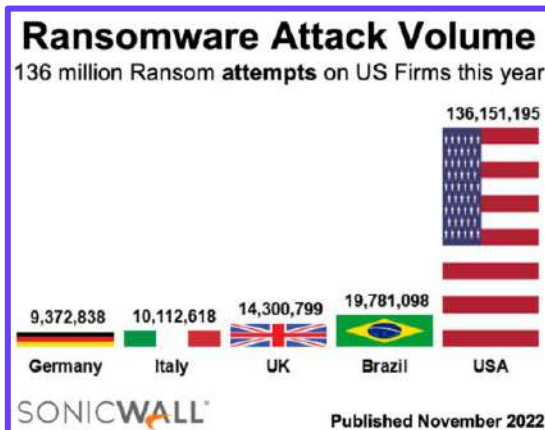
Cyber Insights: *Ransomware*

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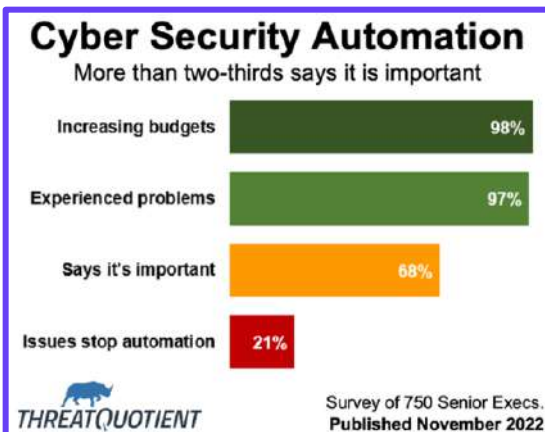
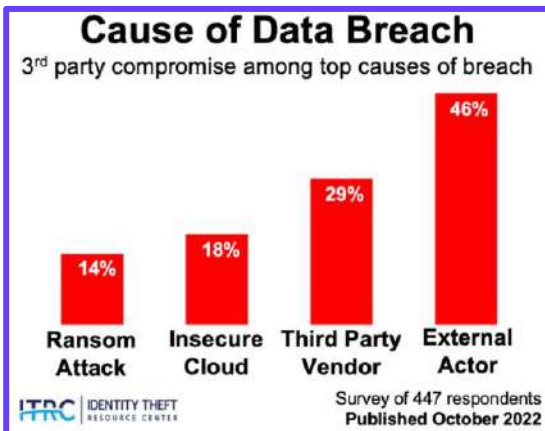
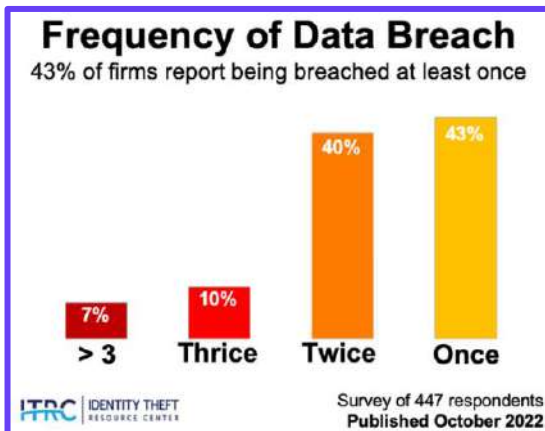
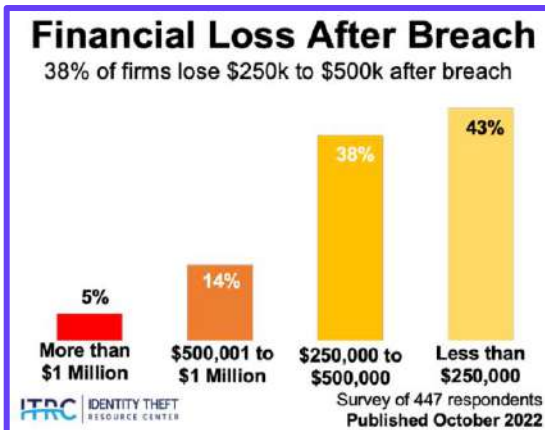
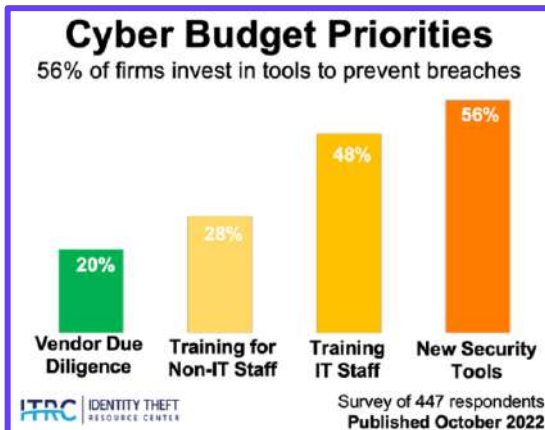
The Best Cyber Insights of 2022

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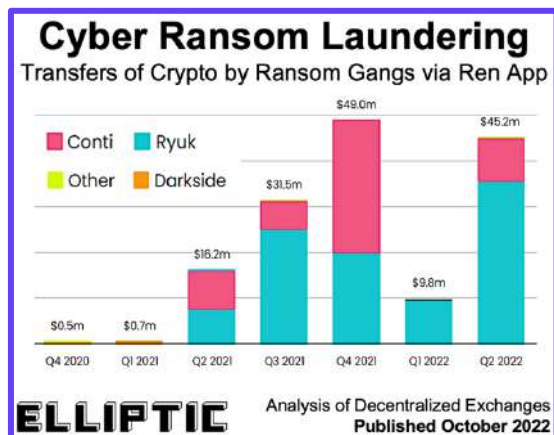
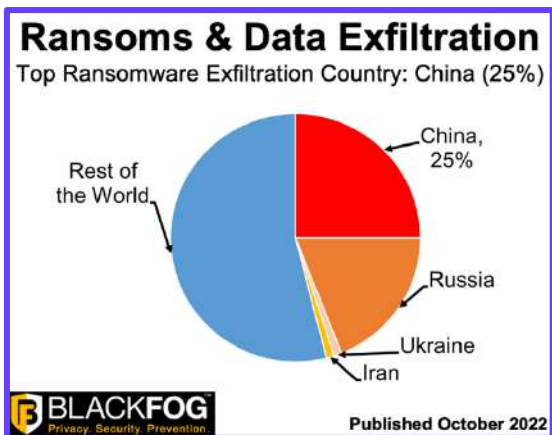
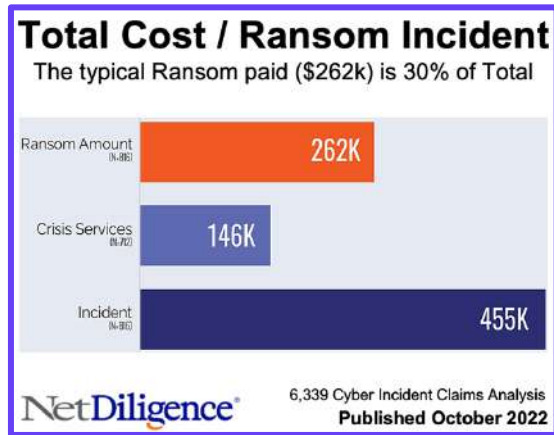
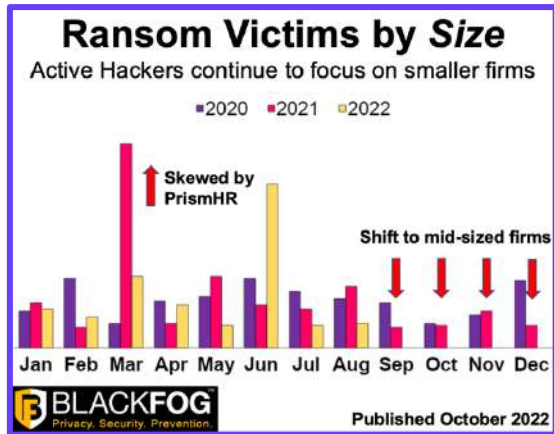
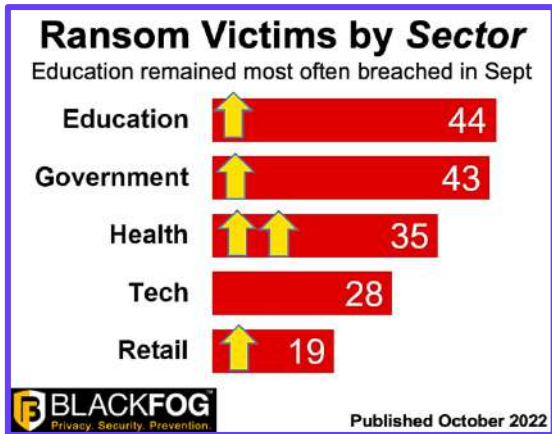
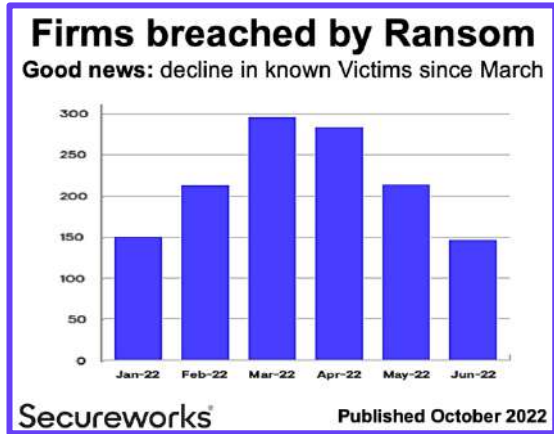
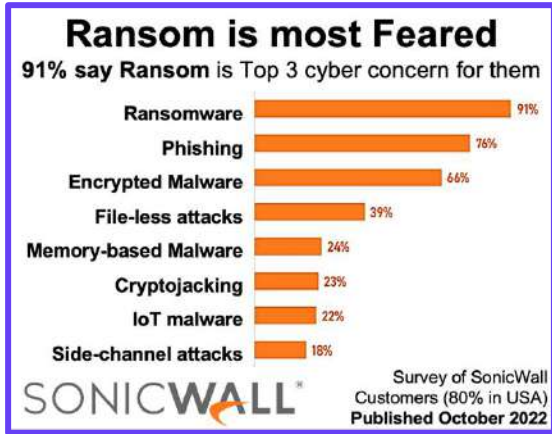
The Best Cyber Insights of 2022

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The Best Cyber Insights of 2022

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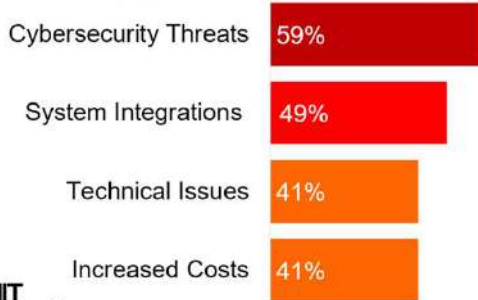


Cyber Insights: *Cyber in Banks*

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Digital Payments Challenges

59% say Cybersecurity is a top challenge



MIT Technology Review

Published October 2022

Cyber Challenges for Banks

Reducing Costs now #2 challenge for IT Leaders

- #1 Need to Support New Technology
- #2 Reducing Security Costs
- #3 Employee Retention
- #4 Adhering to Regulations
- #5 Threat Landscape & Cyber Warfare

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Survey of 500+ IT Decision Makers
Published October 2022

Risks to UK Financial Firms

Top risks = Cyber & Inflation ahead of Geopolitics

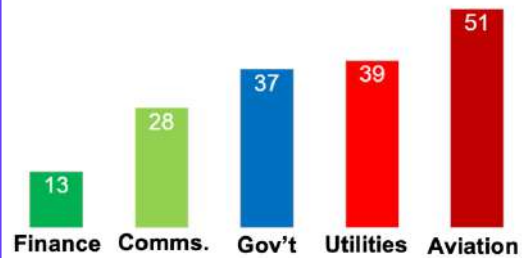


Bank of England

Bi-Annual Survey of Firms in UK
Published 12th October 2022

Banks lead Cyber Resilience

Finance Firms take fewest days to detect attacks

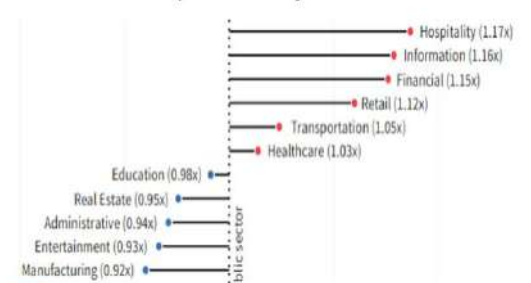


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Survey of 500+ IT Decision Makers
Published October 2022

Banks more likely to Claim

Finance firms report more cyber losses to Insurers

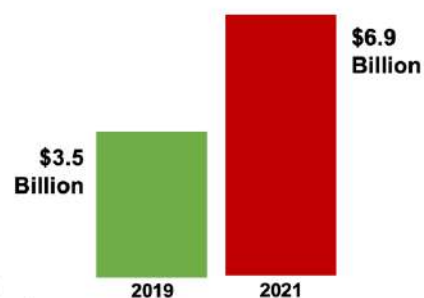


Cyentia

Review of Cyber Insurance Claims
Published October 2022

Cybercrime Annual Loss

Annual Losses "doubled" between 2019 and 2021

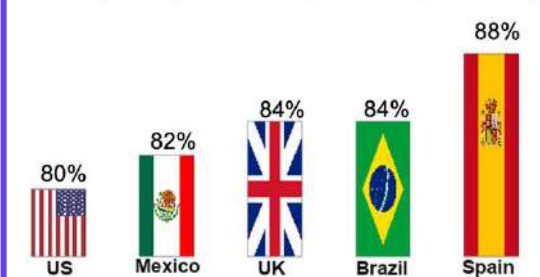


MIT Technology Review

Published October 2022

Cyber Security Prioritization

88% in Spain say their board prioritize cyber security

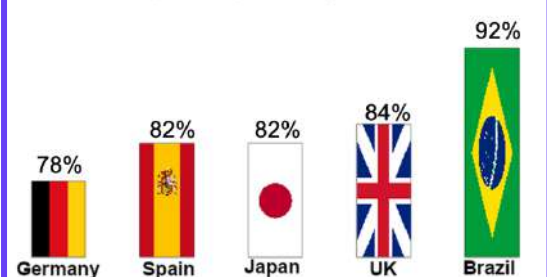


proofpoint.

Survey of 600 Board Directors
Published October 2022

Cyber Security Investment

84% in UK say their cyber budget is now Adequate

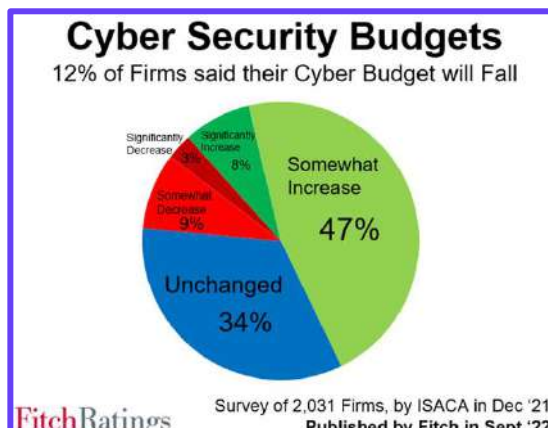
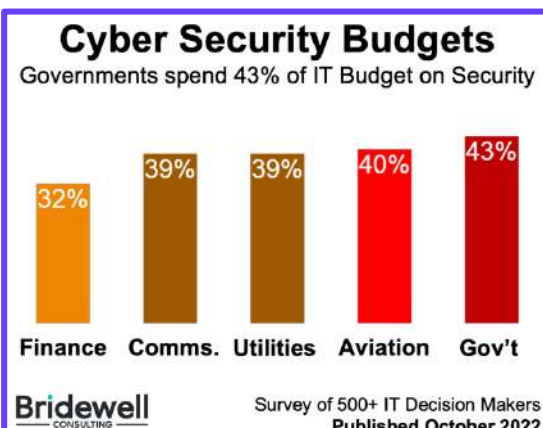
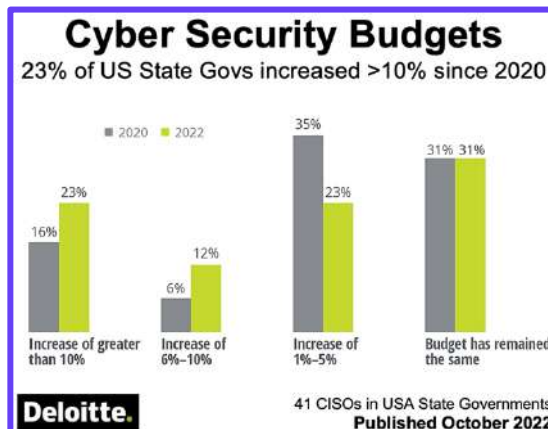
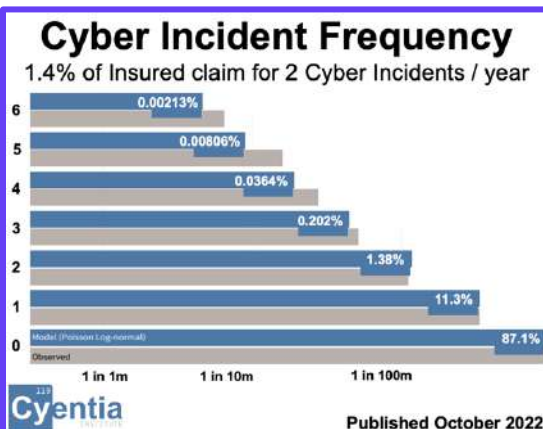
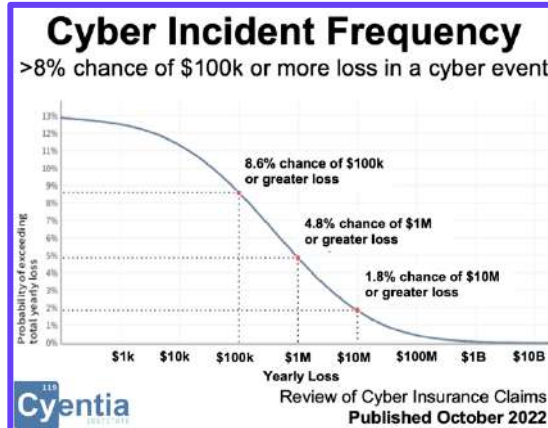
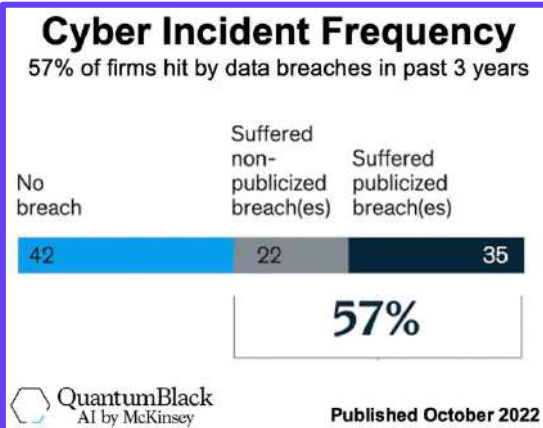
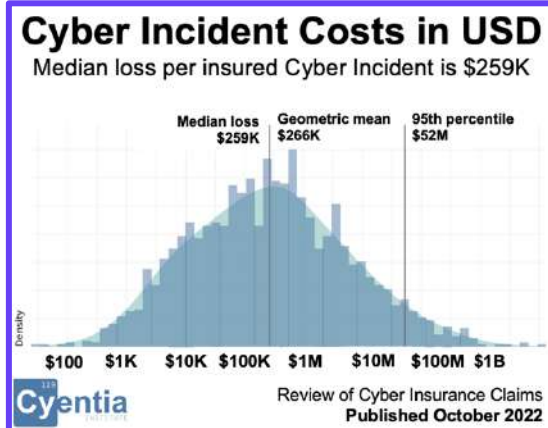
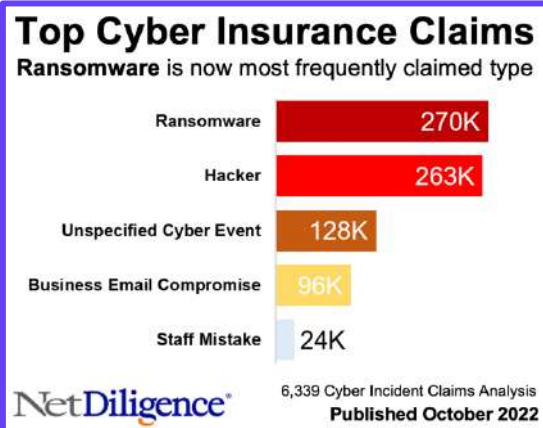


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Survey of 600 Board Directors
Published October 2022

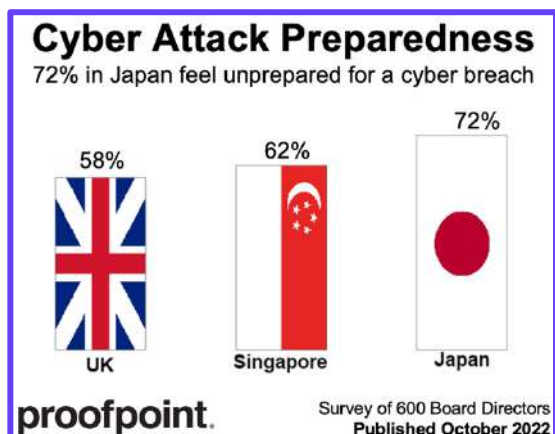
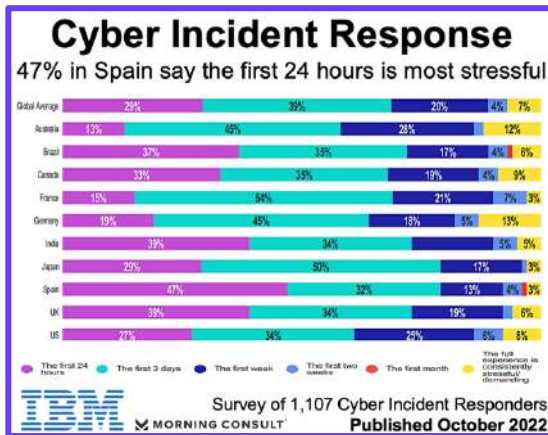
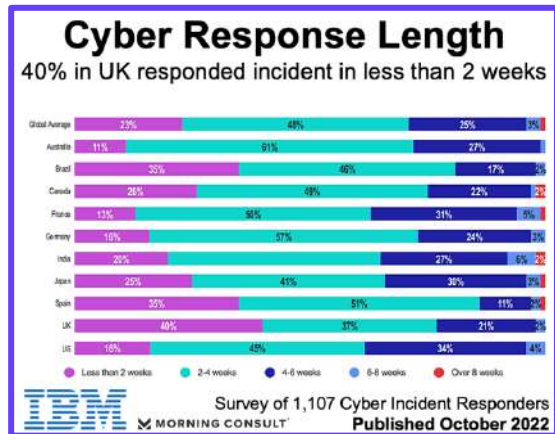
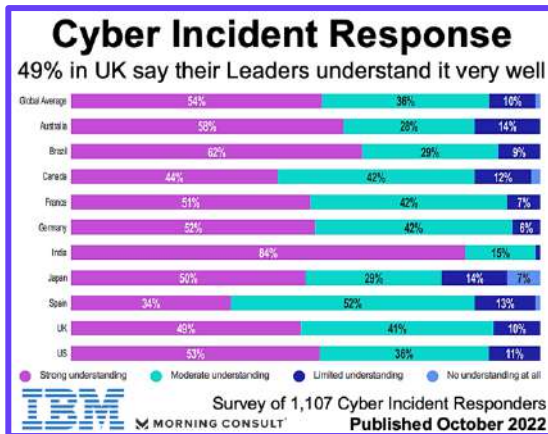
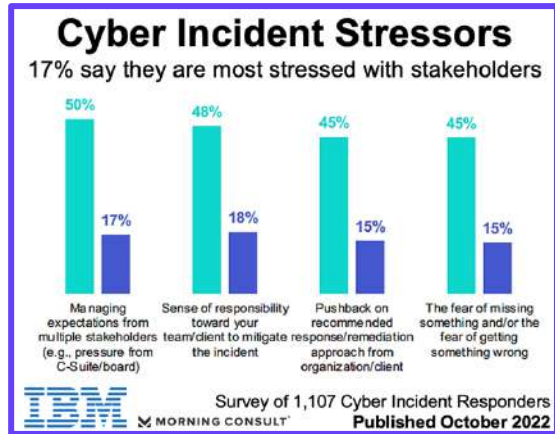
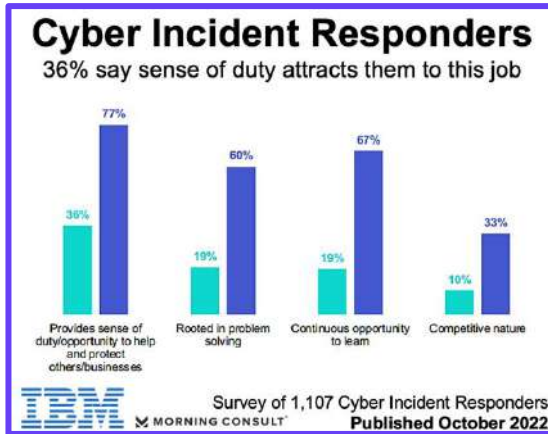
Cyber Insights: *Cyber Risk Quantification*

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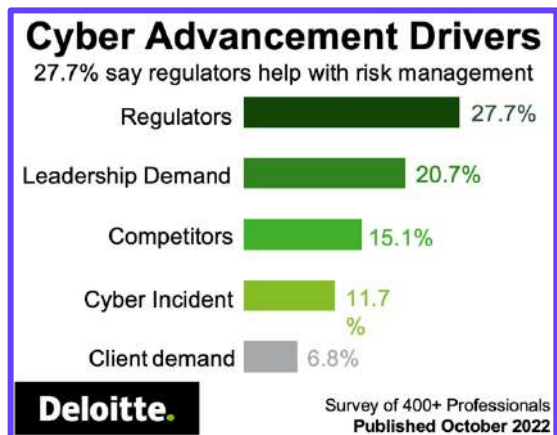
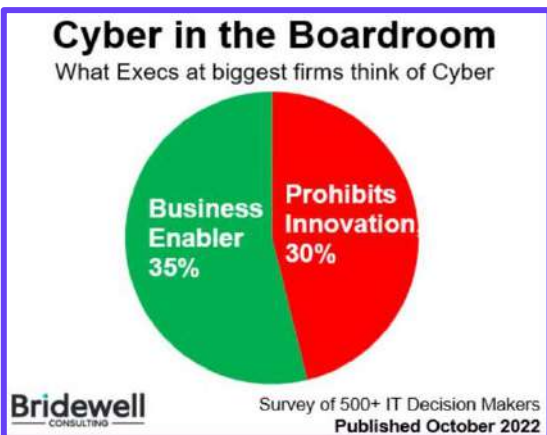
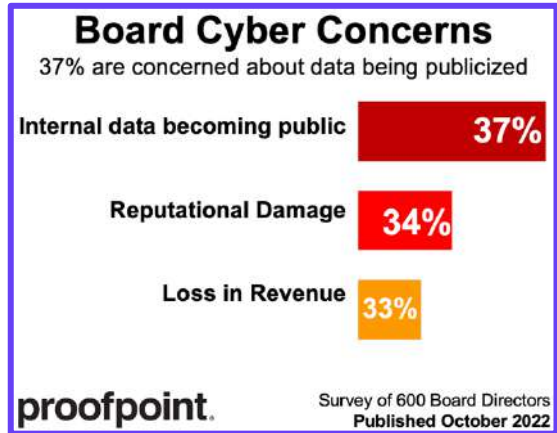
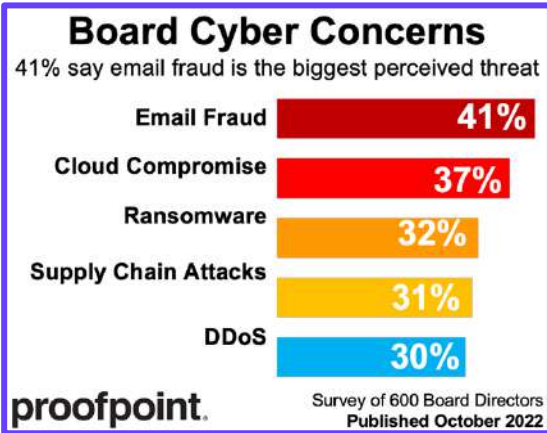
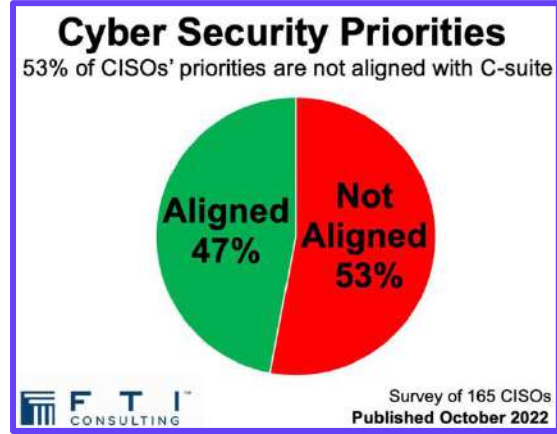
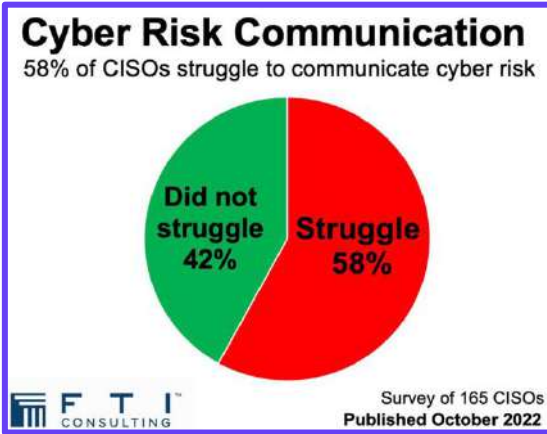
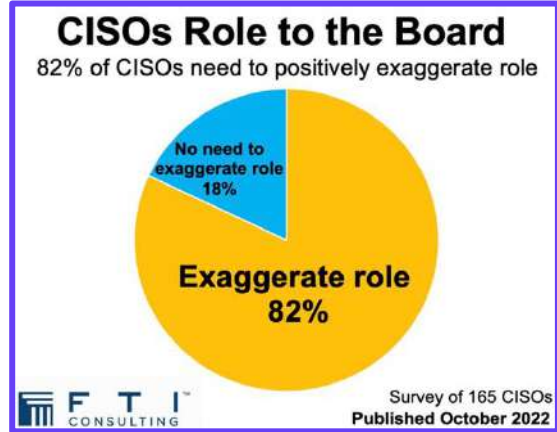
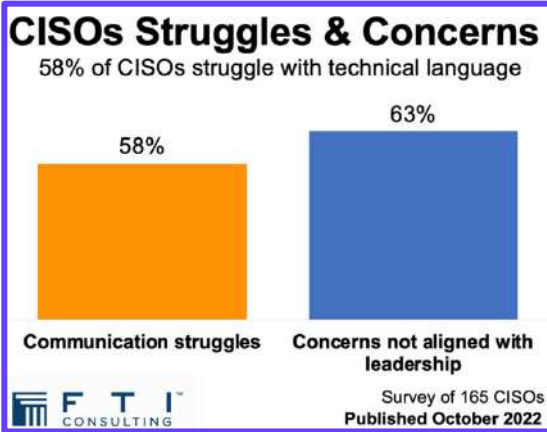
Cyber Insights: *Cyber Incident Response*

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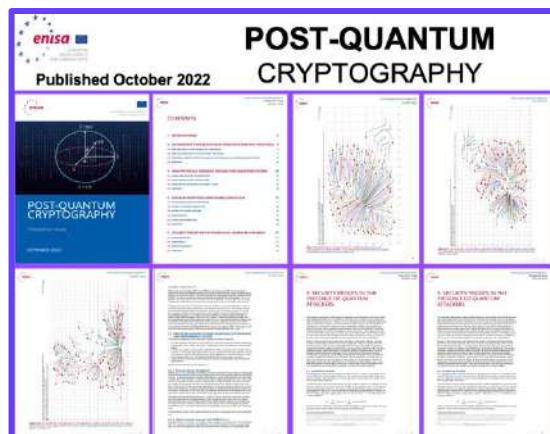
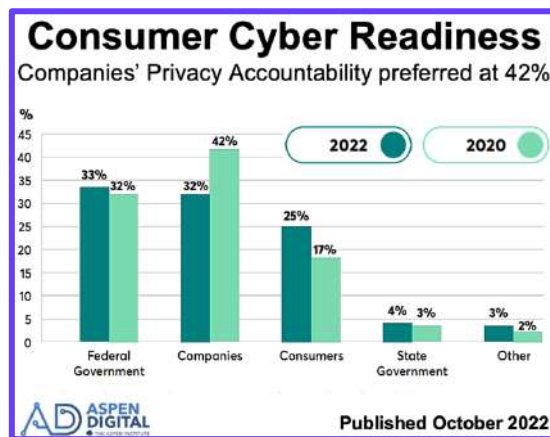
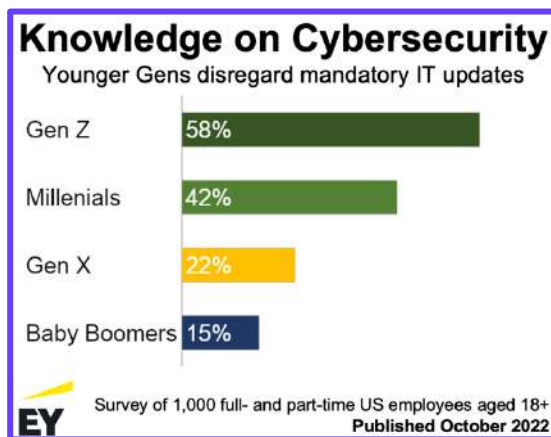
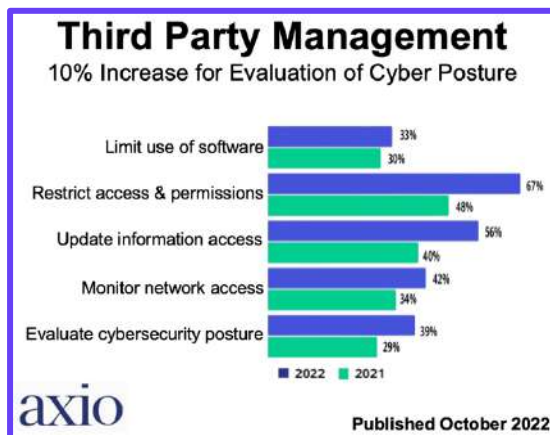
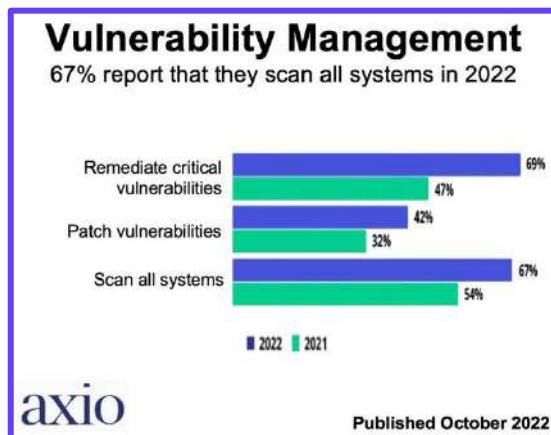
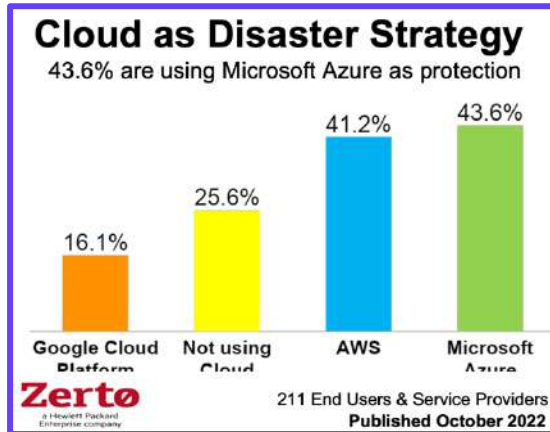
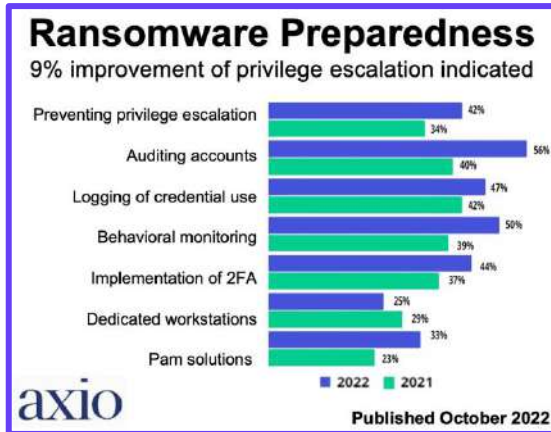
Cyber Insights: *CISOs in the Boardroom*

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Cyber Insights: *Cyber Development*

Click each image to see each report in full. All were published in month to November 2022



Cyber Insights: Security & Challenges

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Cyber Challenges

Real-time data visibility is #1 challenge in Aviation

Transport & Aviation	Finance	Utilities
Real-time data visibility	Trust in cyber security tools	Protecting our critical assets
Supporting remote and hybrid working	Managing cloud security	Trust in cyber security tools
Lack of cyber security talent	Real-time data visibility	Lack of cyber security talent
Improving cyber resilience	Complying with regulations	Data protection and privacy
Managing supply chain risks	Supporting remote and hybrid working	Managing supply chain risks/ complying with regulations

Bridewell CONSULTING
Survey of 500+ IT Decision Makers
Published October 2022

Cyber Security Staffing

62% of firms say Cyber Security is Understaffed

Staffing Level	Percentage
Significantly Understaffed	15%
Somewhat Understaffed	47%
Appropriately Staffed	34%
Somewhat Overstaffed	2%
Significantly Overstaffed	1%

FitchRatings
Survey of 2,031 Firms, by ISACA in Dec '21
Published by Fitch in Sept '22

US Cyber Security Demand

769,736 Cyber Security job openings available

TOTAL JOB OPENINGS

Job Opening Range	Count
722 – 2,498	722 – 2,498
2,499 – 4,845	2,499 – 4,845
4,846 – 7,259	4,846 – 7,259
7,260 – 9,567	7,260 – 9,567
9,568 – 18,596	9,568 – 18,596
18,597 – 24,903	18,597 – 24,903
24,904 – 83,196	24,904 – 83,196

Cyber Seek
Published October 2022

Cyber Communications

66% of CISOs struggle to understand roles

Struggle Level	Percentage
Struggle	66%
Did not struggle	34%

F T I CONSULTING
Survey of 165 CISOs
Published October 2022

Consumer Cyber Readiness

MFA feature highest usage increase at 27%

Growth in 2 years

Feature	2021 Usage	2022 Usage	Growth
Strong Password	74%	88%	14%
Phone unlock Auth	69%	85%	16%
GPS Access during App use	65%	81%	16%
Non-Invasive Apps Preference	71%	80%	9%
Mindful Permission Settings	60%	78%	18%
MFA	50%	77%	27%

AD ASPEN DIGITAL
Published October 2022

Manage Service Account

50% of organizations review service account

Activity	2021	2022
Review privileges service account	38%	50%
Audit of service account use	36%	47%

axio
Published October 2022

Cyber and Technology Slip

Most important Risk Categories in 2021-2022

Risk Category	UK 2021	UK 2022	US 2021	US 2022
Cyber and Technology	36%	23%	21%	21%
Business	36%	32%	32%	26%
Environmental	9%	21%	14%	26%

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Published October 2022

Biggest Resilience Drops

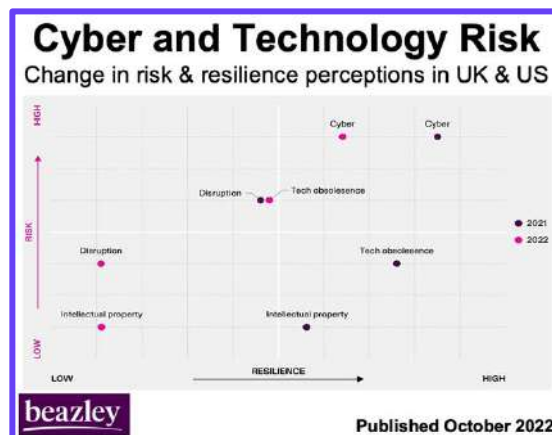
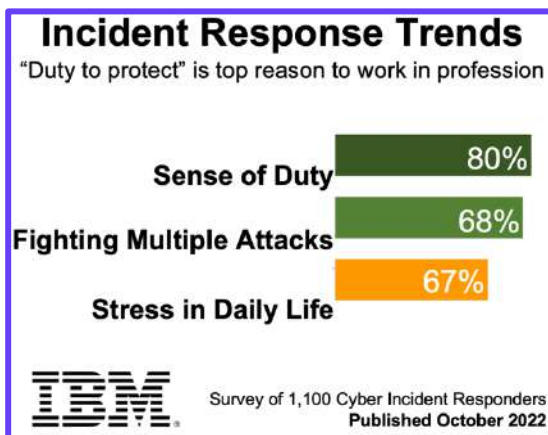
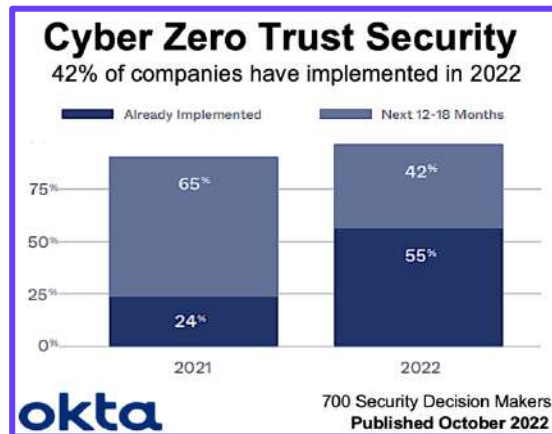
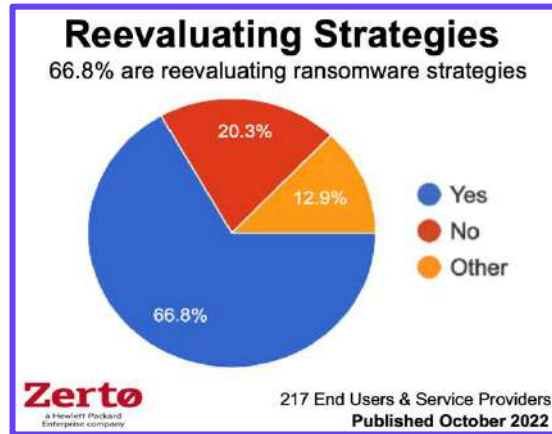
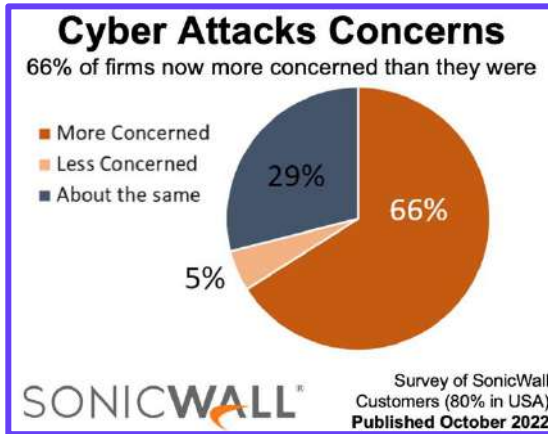
Technology, Media, & Telecoms dropped 14 points

Sector	Resilience Drop
Tech, Media & Telecoms	-14
Retail, Wholesale, Food & Beverage	-9
Real Estate and Construction	-5
Energy and Utilities (including mining)	-5

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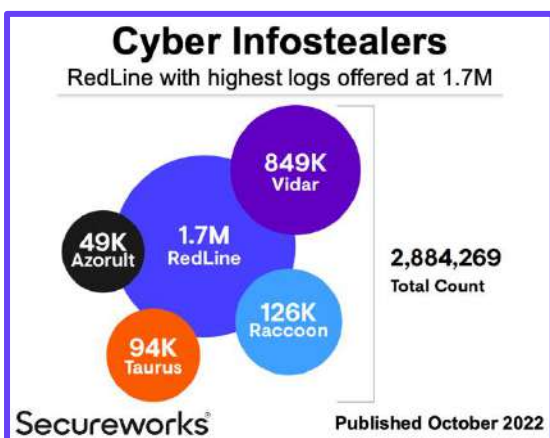
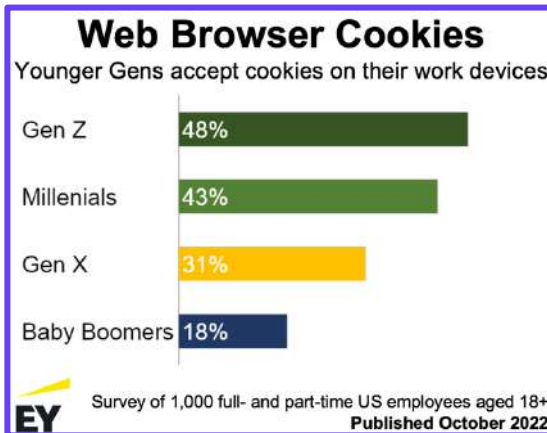
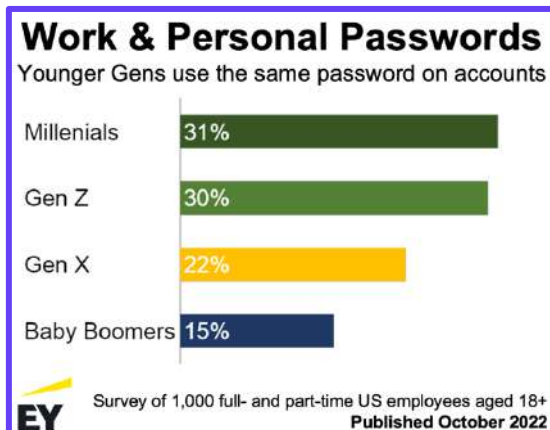
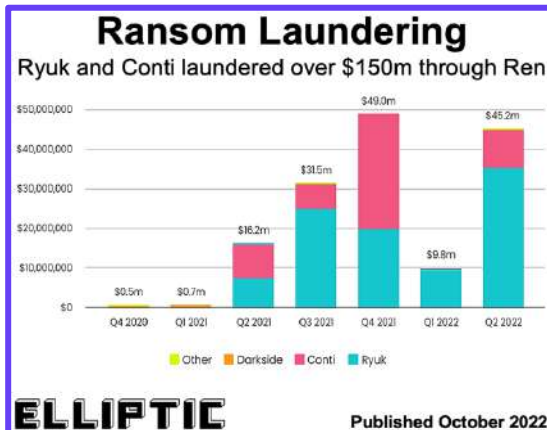
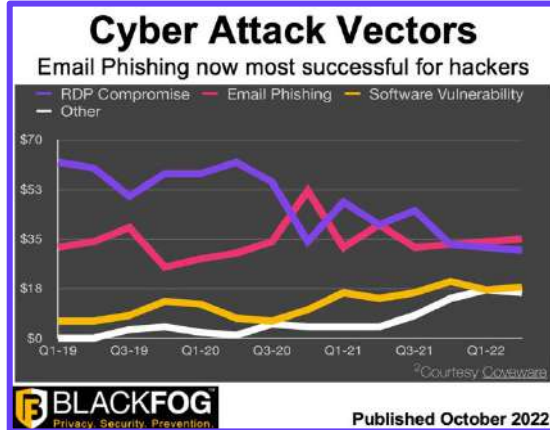
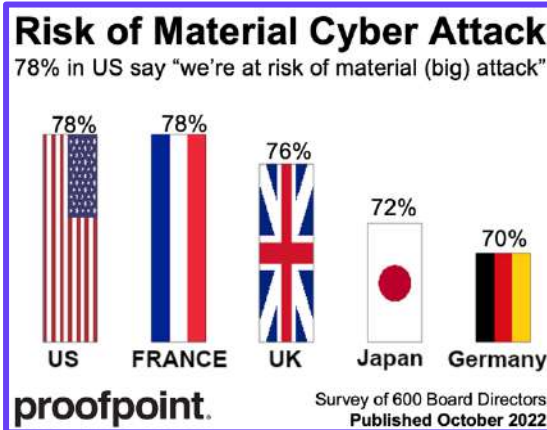
Cyber Insights: *Cyber Concerns & Strategies*

Click each image to see each report in full. All were published in month to November 2022



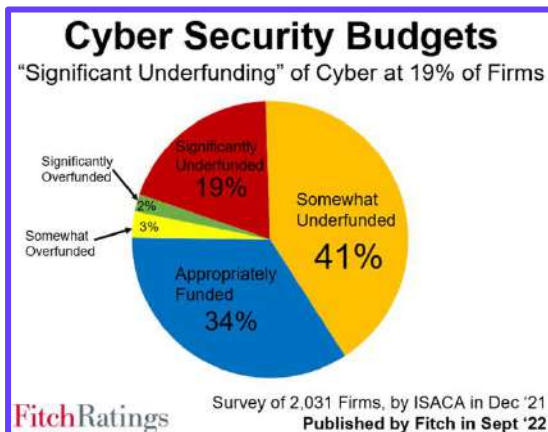
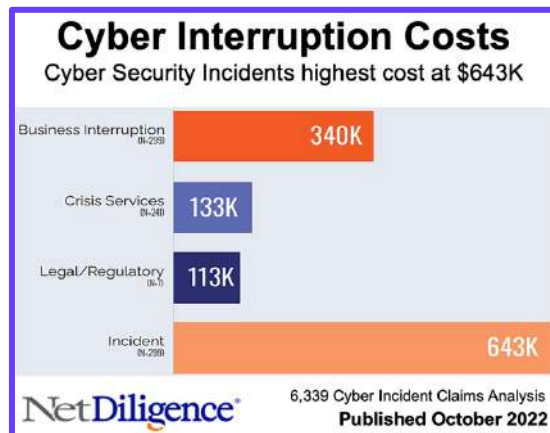
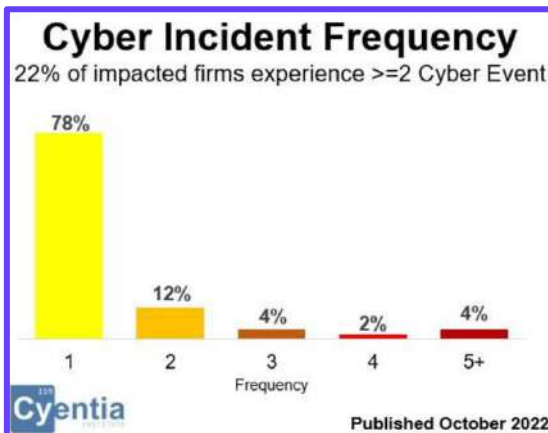
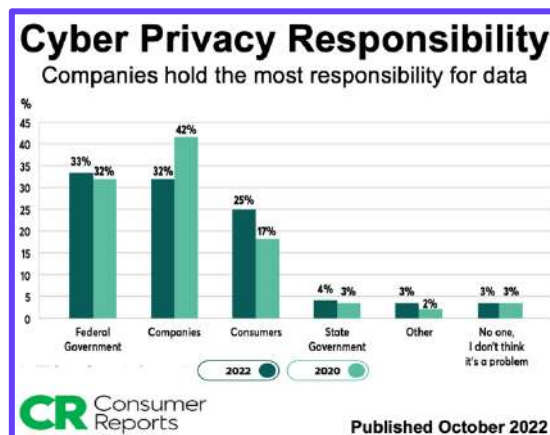
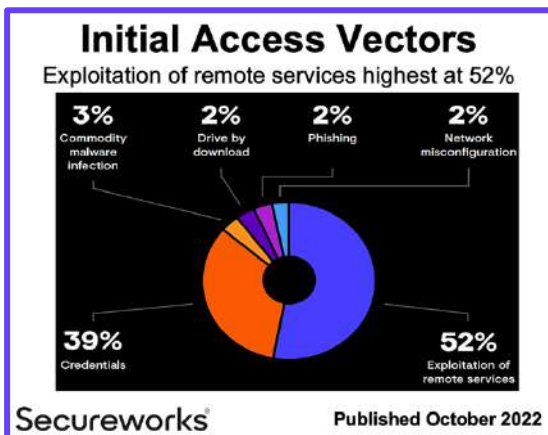
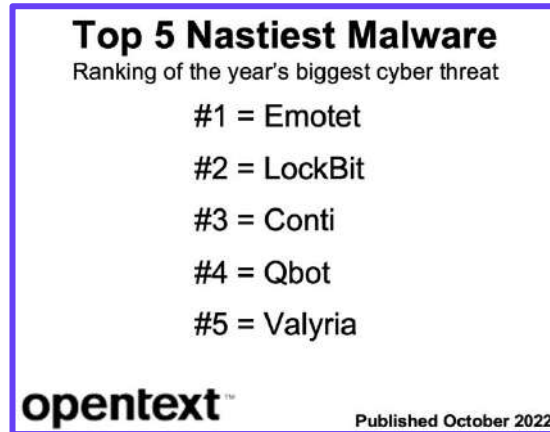
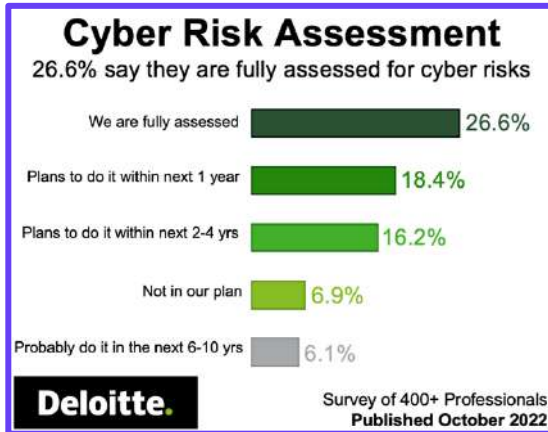
Cyber Insights: *Attack Trends*

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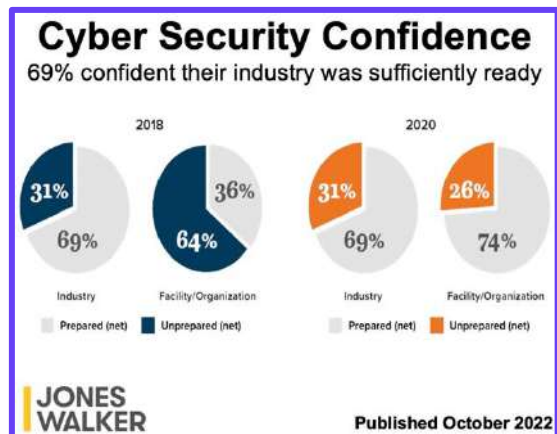
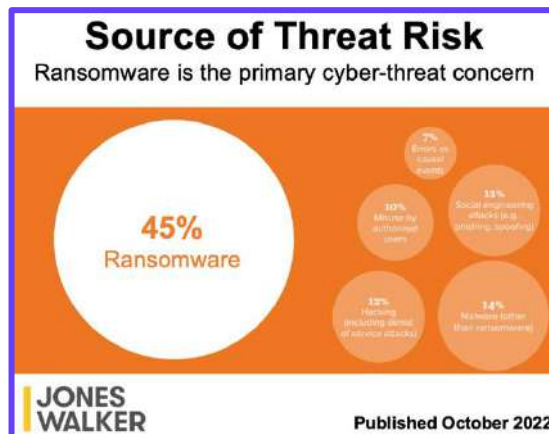
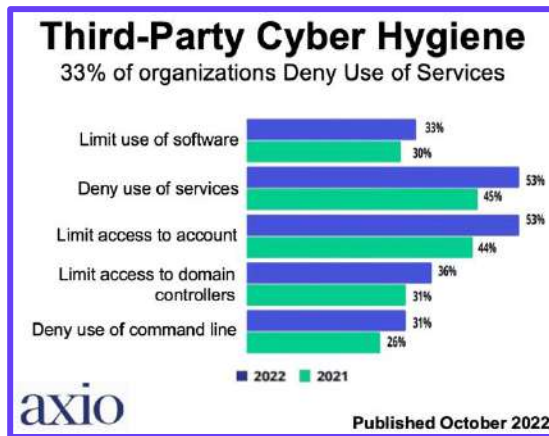
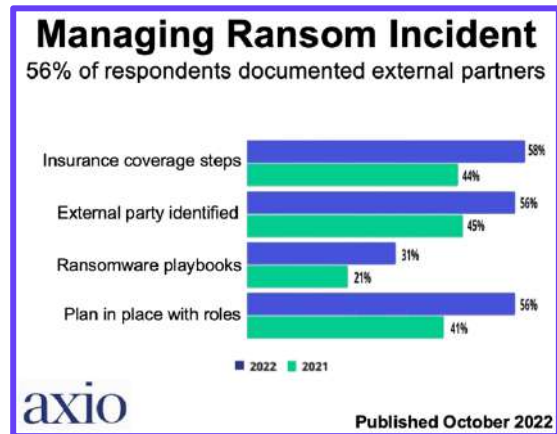
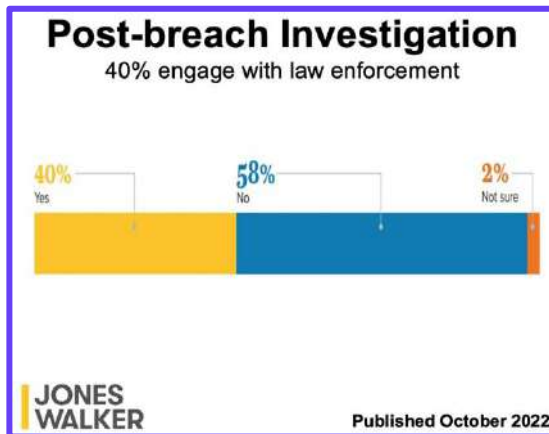
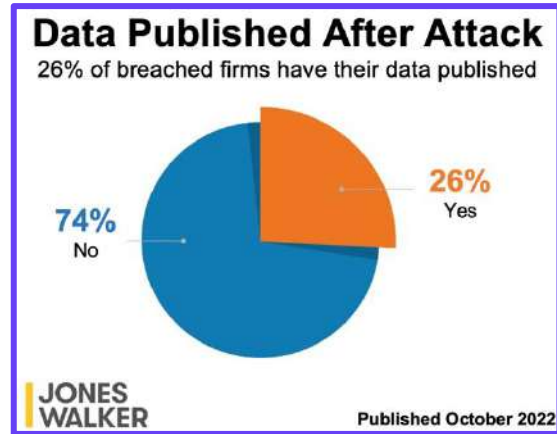
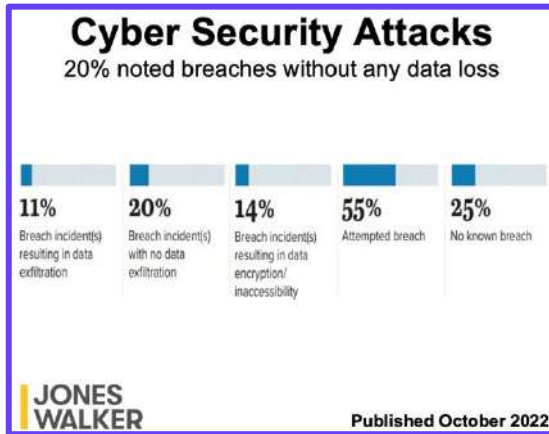
Cyber Insights: *Cyber Threats*

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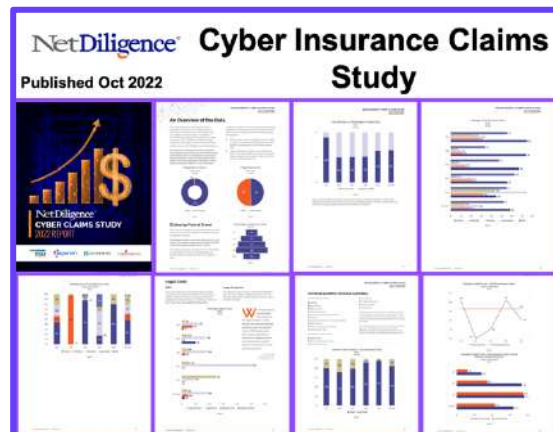
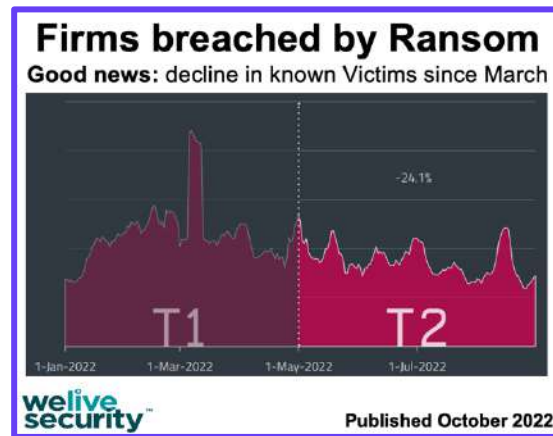
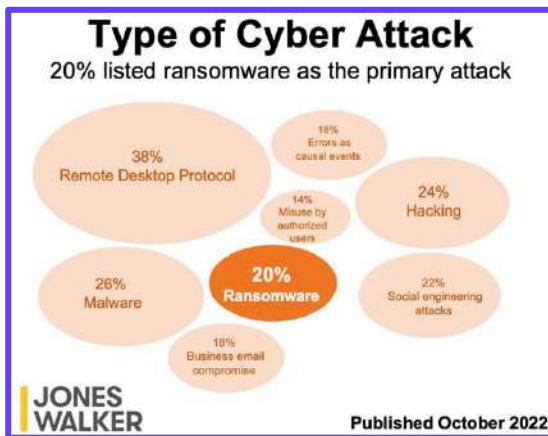
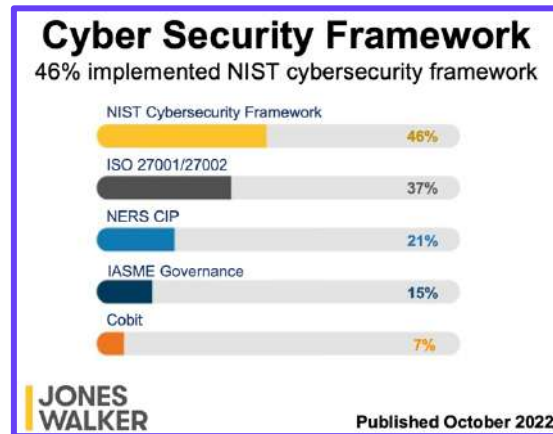
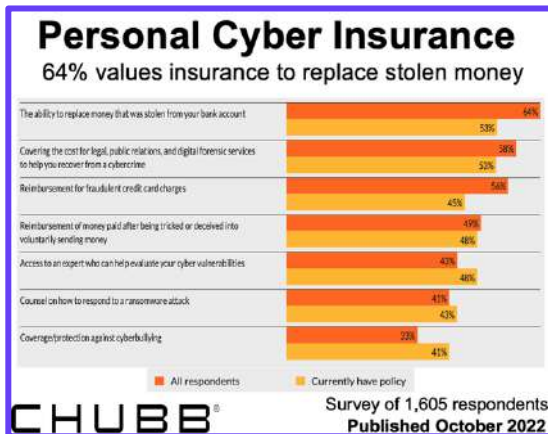
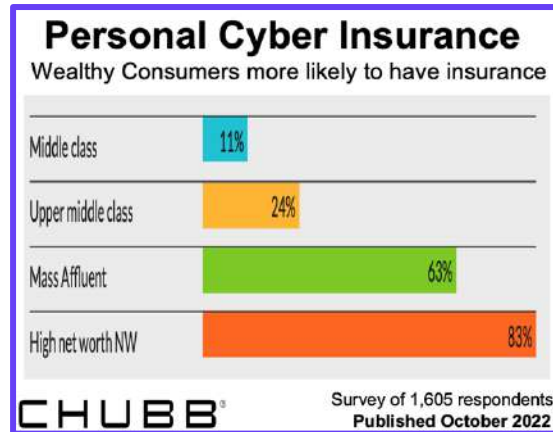
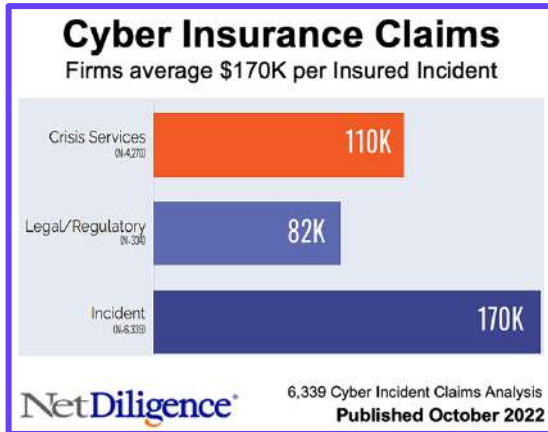
Cyber Insights: *Cyber Attacks*

Click each image to see each report in full. All were published in month to November 2022



Cyber Insights: *Insurance & Incidents*

Click each image to see each report in full. All were published in month to November 2022



The Best Cyber Insights of 2022

Click each image to see each report in full. All were published in month to October 2022

Cyber Insurance Essentials

To buy Insurance, firms must often demonstrate 10:

1. IT Security Leadership
2. Staff Training on cyber
3. Strong Passwords
4. System Backups
5. Regulatory Compliance
6. MFA
7. IRP
8. EDR
9. TPRM
10. Pen Testing

FitchRatings Published September 2022

Cyber Insurance Pricing

Price for \$10m Cover now \$175k for big firms in Oz

FINANCIAL REVIEW Published September 2022

Cyber Insurance Coverage

89% of Energy firms "have Insurance for Ransoms"

Energy & Oil	89%
Retail	88%
Business Services	86%
Transportation	86%
Entertainment	84%

SOPHOS Survey of 5,600 IT professionals Published September 2022

Cyber Attack Protection

84% of orgs fully deploy firewalls to stop attacks

Firewalls	84%
Anti-virus/Anti-malware	81%
Access management	70%
Data loss prevention	69%
Identity management	60%

proofpoint. Published September 2022

Cyber Security Services

Threat Monitoring & Intrusion Detection top at 43%

Vulnerability Assessment	33%
Endpoint Security	33%
Firewall Management	36%
Cybersecurity Consulting	37%
Threat Monitoring & Intrusion Detection	43%

vade Published September 2022

Cyber Insurance Market USA

\$4.9bn paid by firms to Insurers who paid out 65%

Year	Amount Paid by Firms (\$M)	Amount Paid Out by Insurers (%)
2015	\$488	7%
2016	\$434	13%
2017	\$665	20%
2018	\$898	27%
2019	\$988	33%
2020	\$1,335	40%
2021	\$3,152	65%

FitchRatings Published September 2022

Cloud Protection Tools

65% say they use cryptographic tools for cloud data

Cryptographic Tools	65%
Premium Security Services	56%
Access Security Broker	53%
Private Data Network	43%
Other	3%

proofpoint. Published September 2022

Cyber is #1 on Firms' Radars

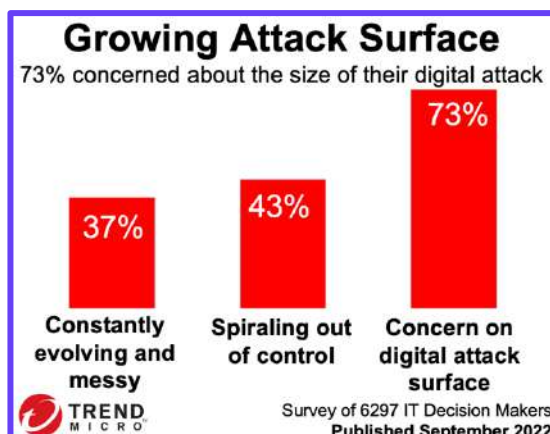
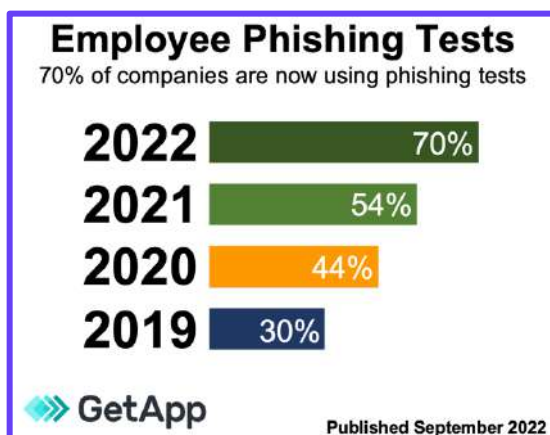
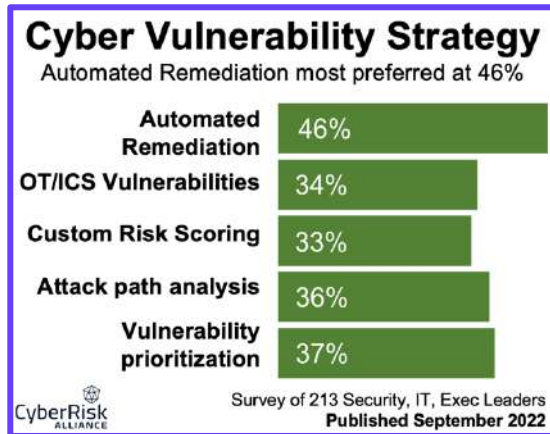
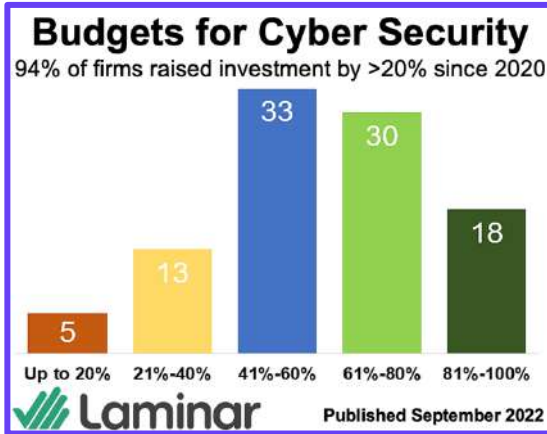
45% of "taking action" on Cyber, vs 31% on Energy

Category	Not at all	Somewhat	We are monitoring closely	We are taking action	Unsure/NA
Cyber Security	1%	14%	38%	45%	1%
US Tax	3%	17%	47%	32%	1%
Energy	3%	21%	43%	31%	2%
Healthcare	4%	22%	41%	31%	2%
Global Tax	7%	20%	40%	31%	2%

pwc Interviews with 722 US execs Published August 2022

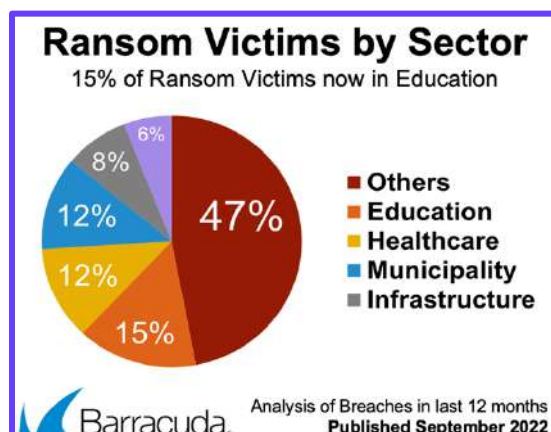
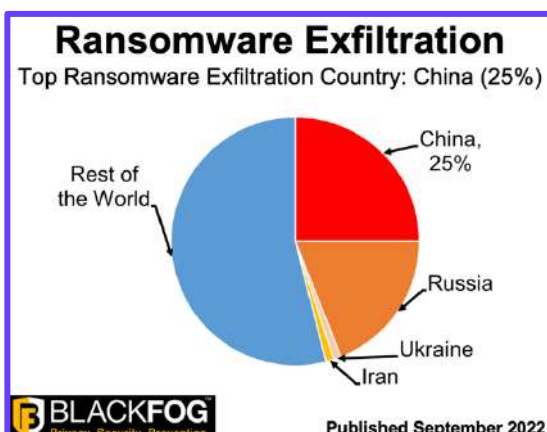
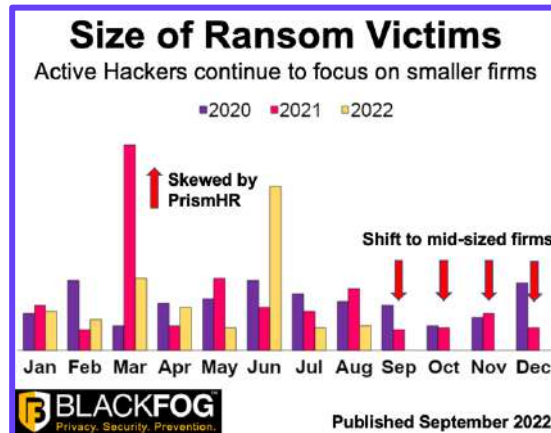
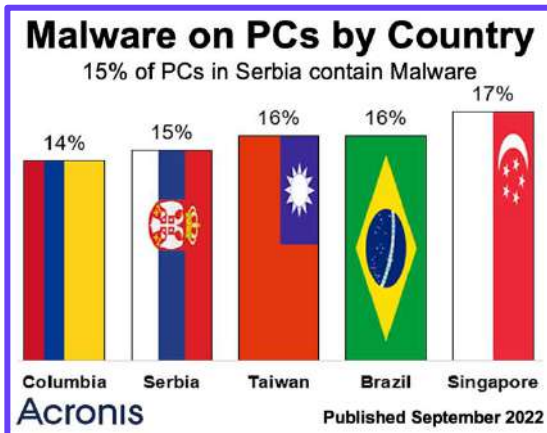
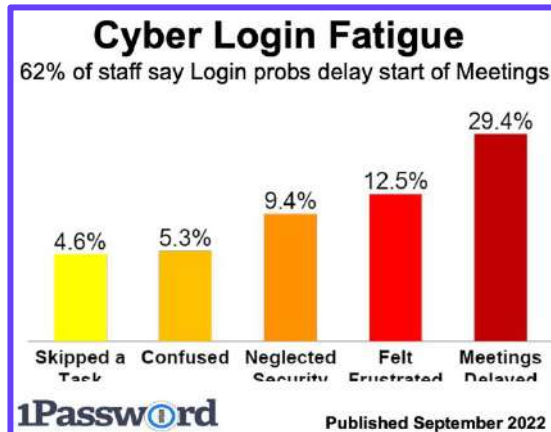
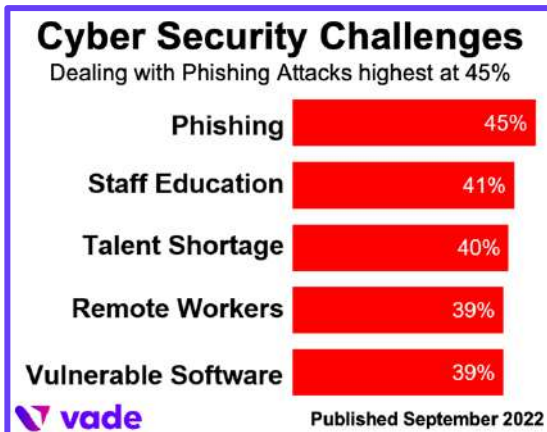
Cyber Insights: *Cyber Security Investments*

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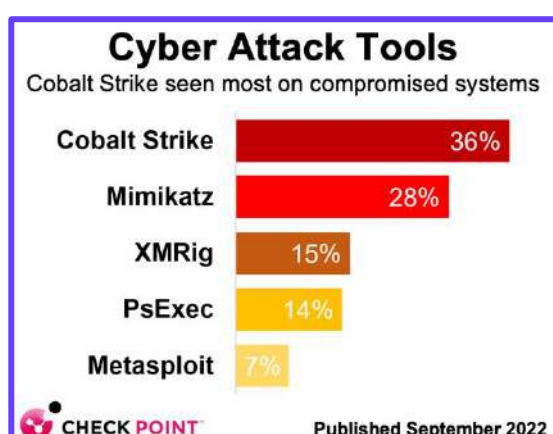
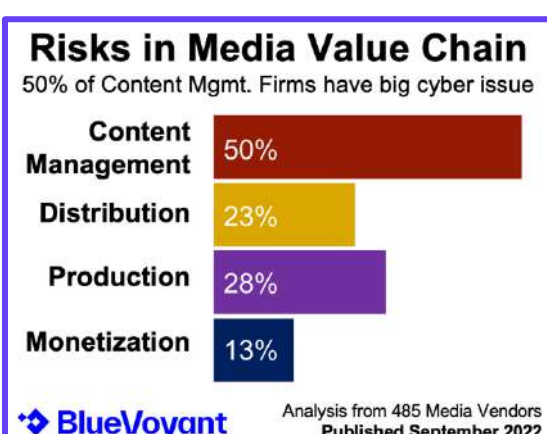
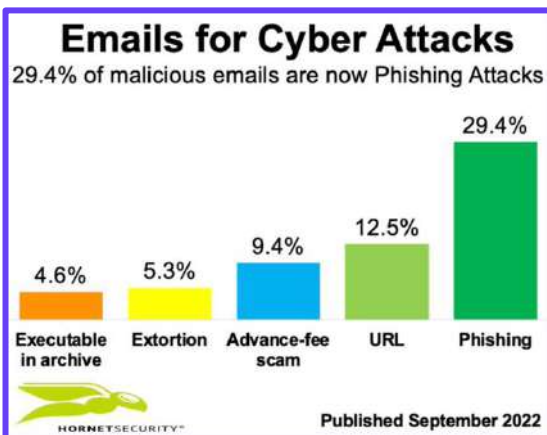
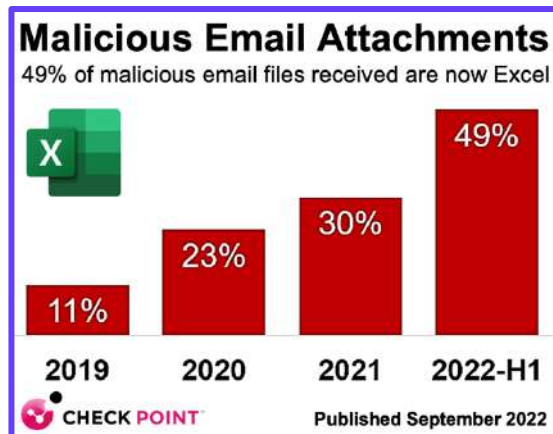
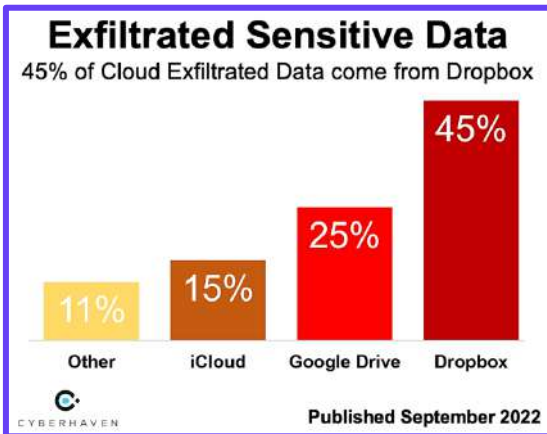
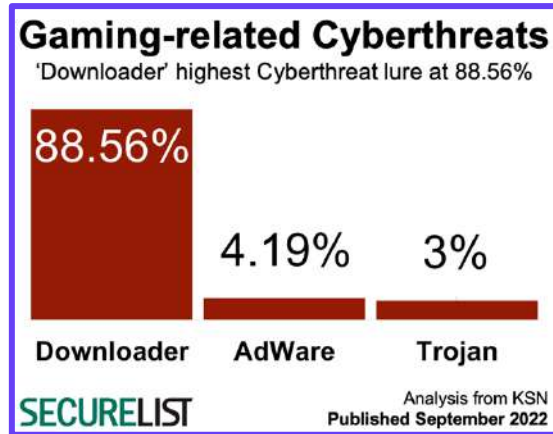
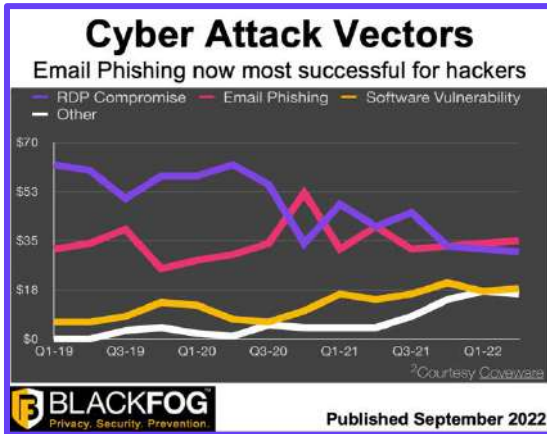
Cyber Insights: *People & Cyber Challenges*

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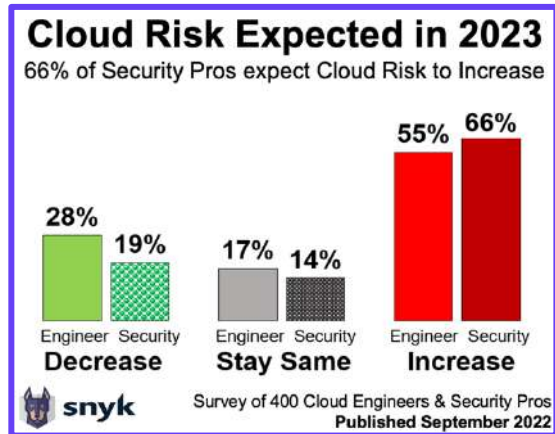
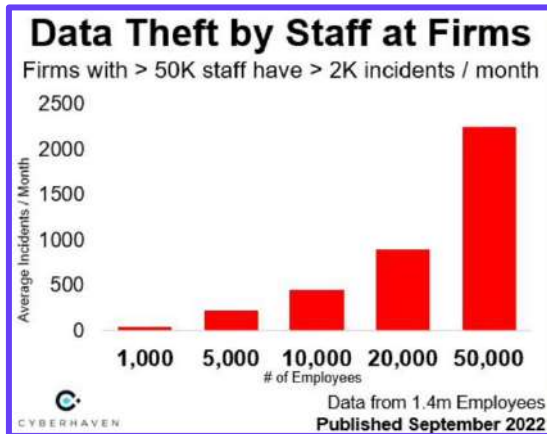
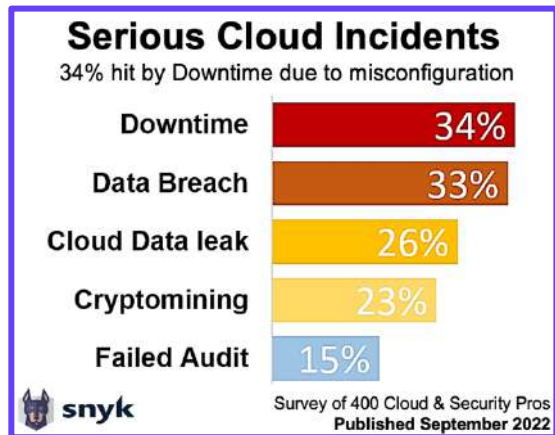
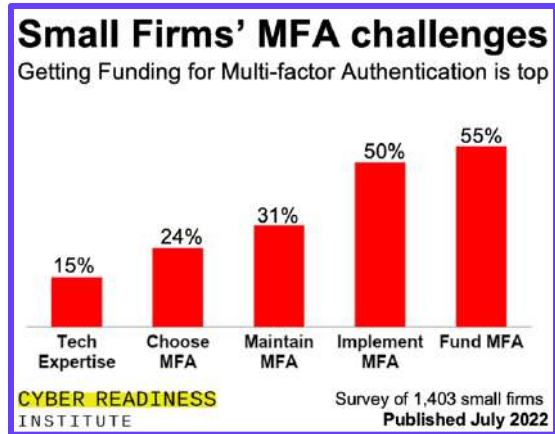
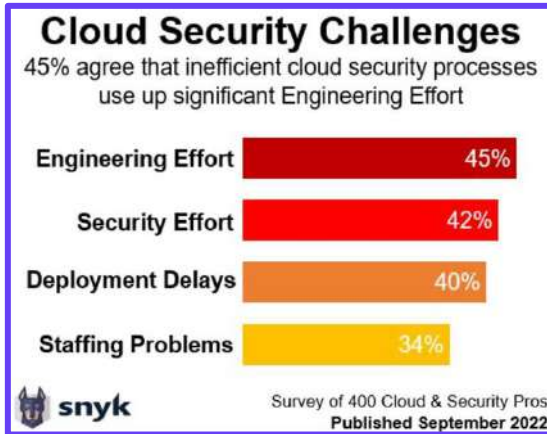
Cyber Insights: *Cyber Threats & Lures*

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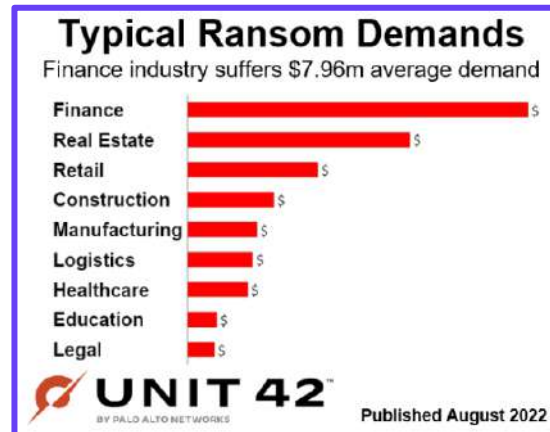
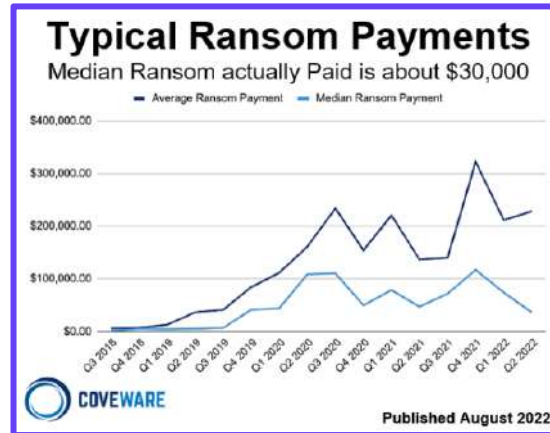
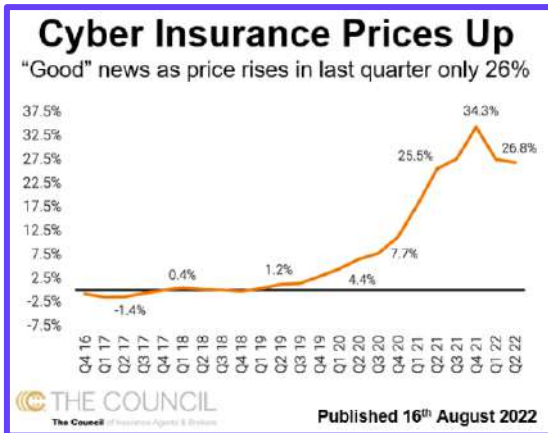
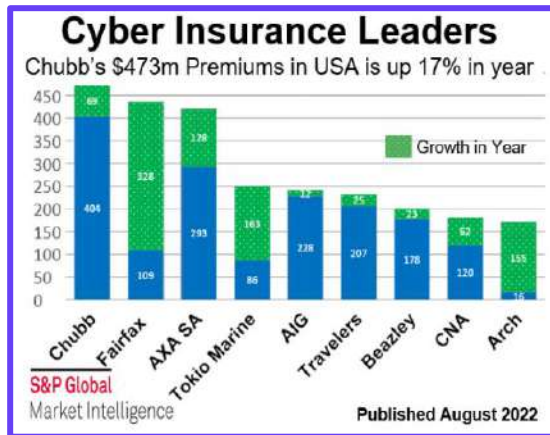
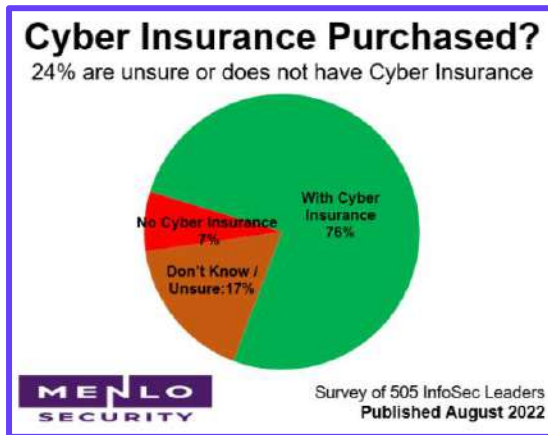
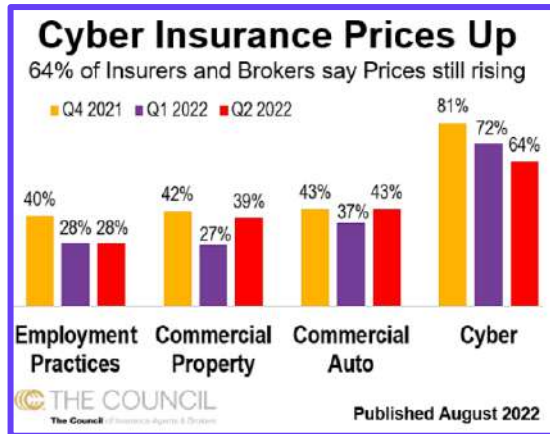
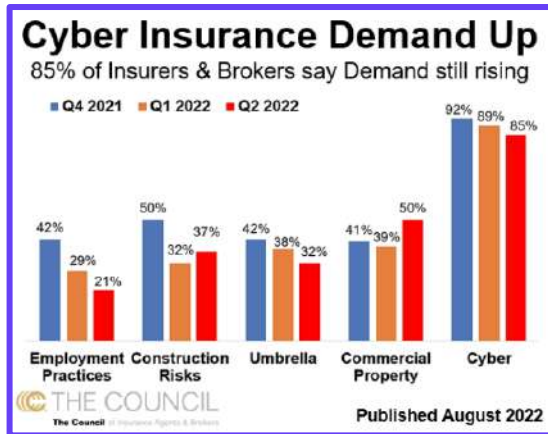
Cyber Insights: *Cloud Vulnerabilities*

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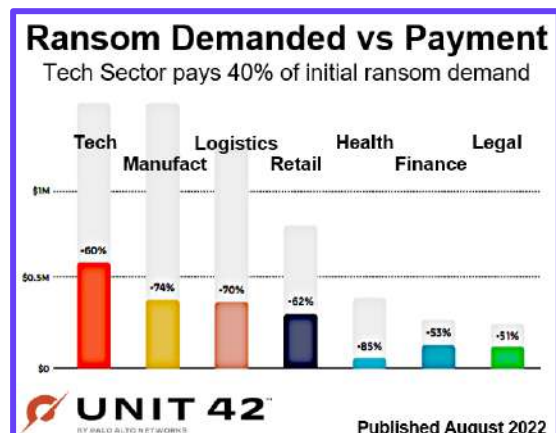
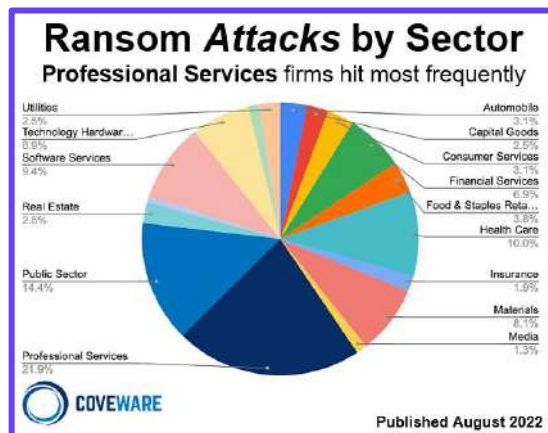
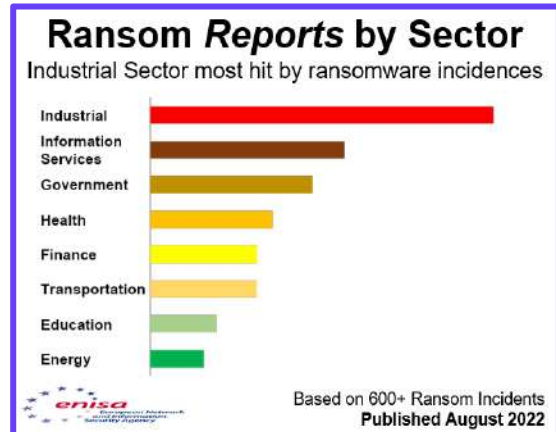
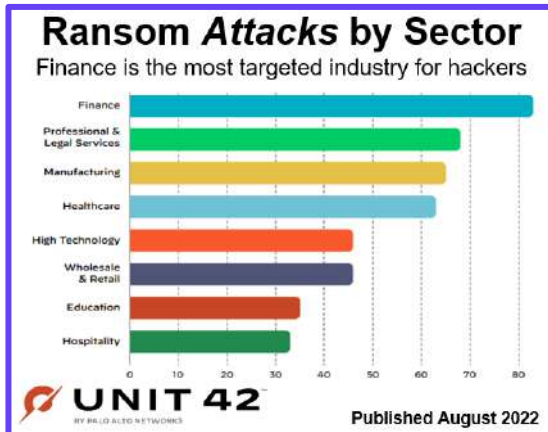
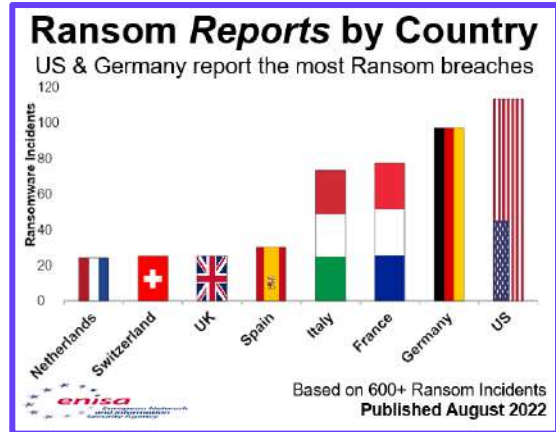
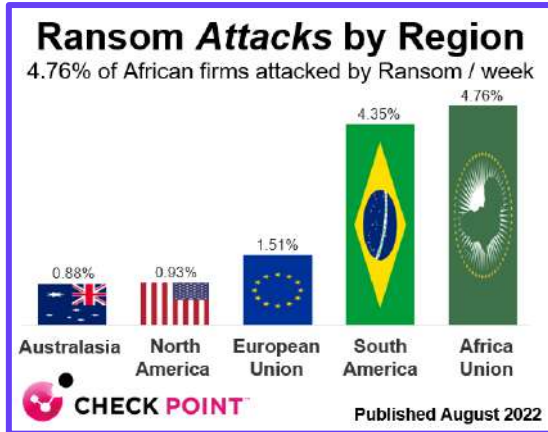
Cyber Insights: *Cyber Insurance & Costs*

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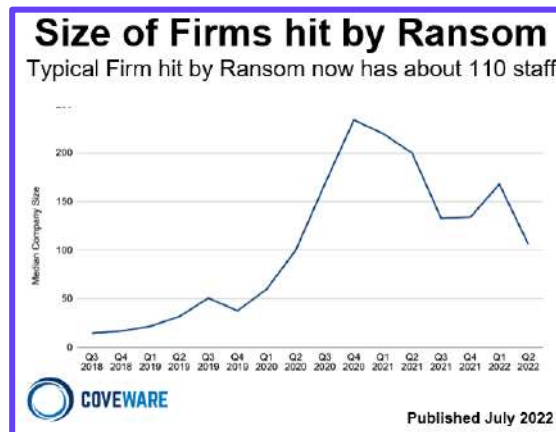


Cyber Insights: Ransom Attacks

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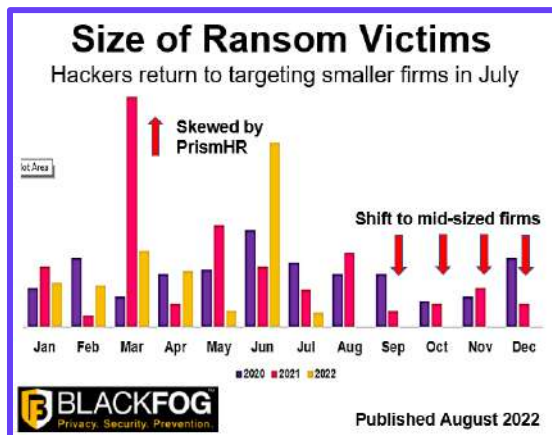
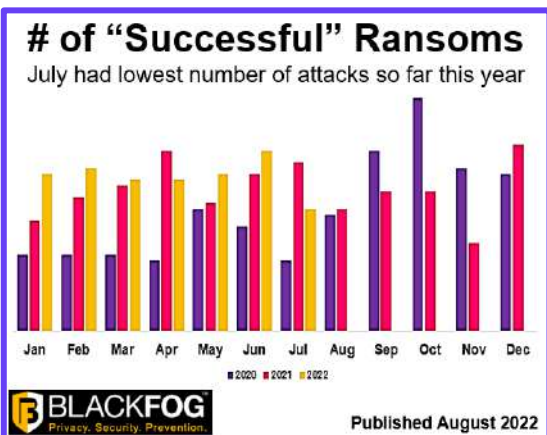
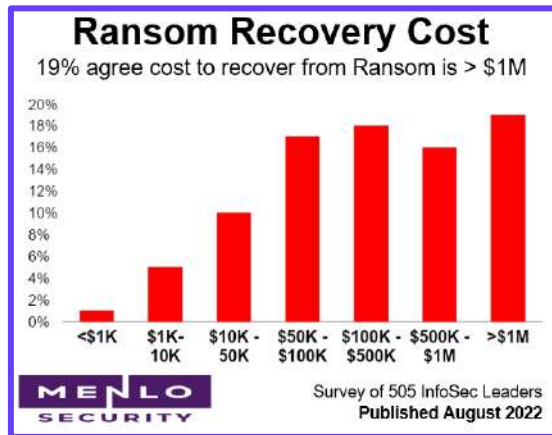
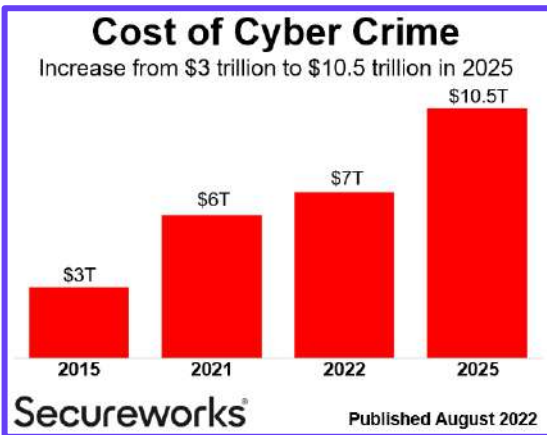
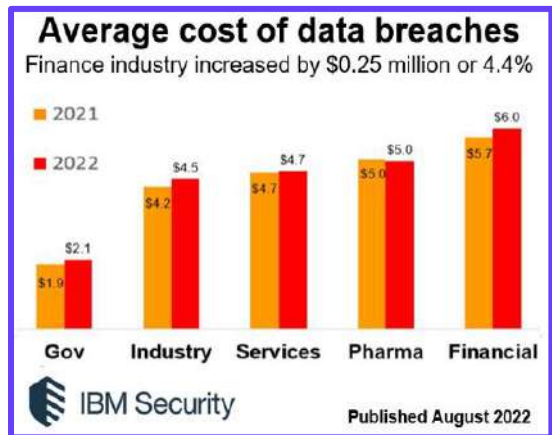
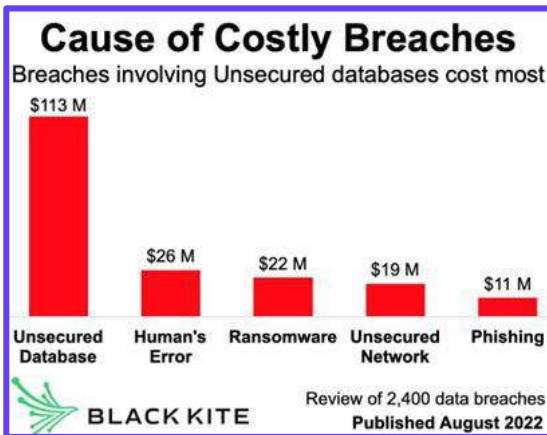
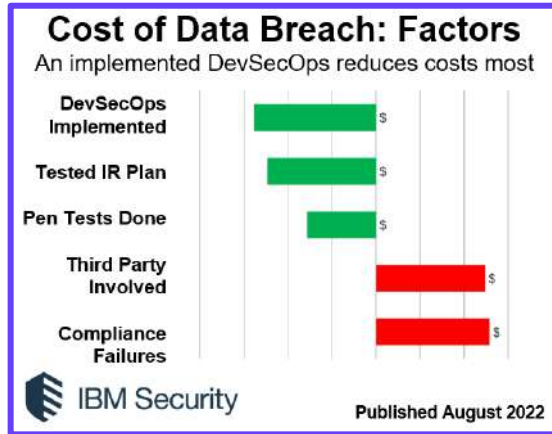
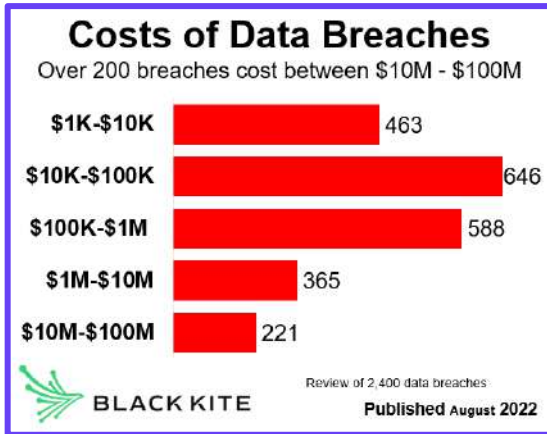


- ### Ransom Attack Response
- Implement recovery plan is top mentioned response
- #1 Implement Recovery Plan (45%)
 - #2 Analyse damage of attack (39%)
 - #3 Quarantine the Endpoints (37%)
 - #4 Inform all of the Employees (37%)
 - #5 Inform affected Customers (33%)
- MENLO SECURITY
Survey of 505 InfoSec Leaders
Published August 2022



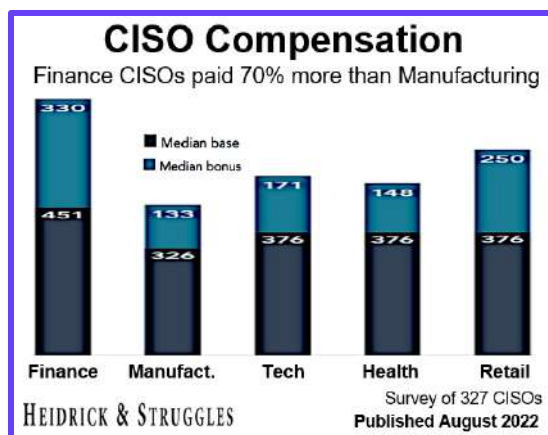
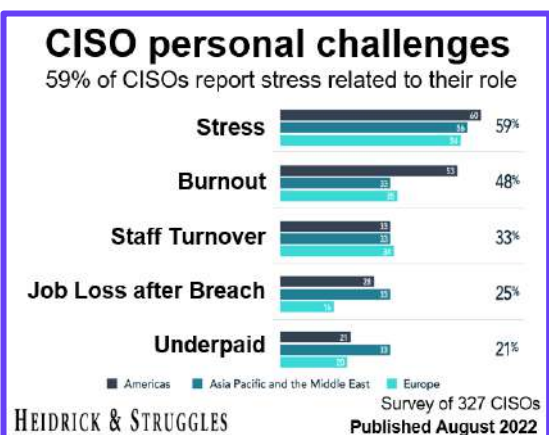
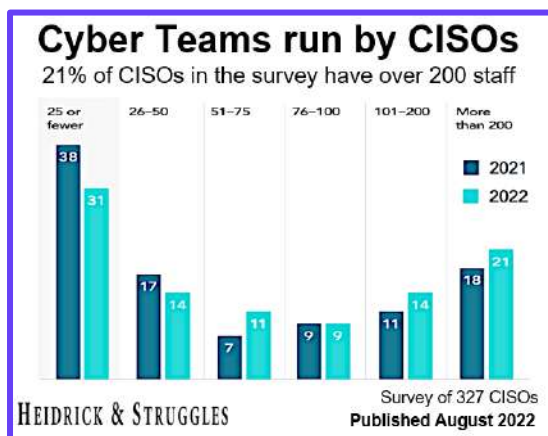
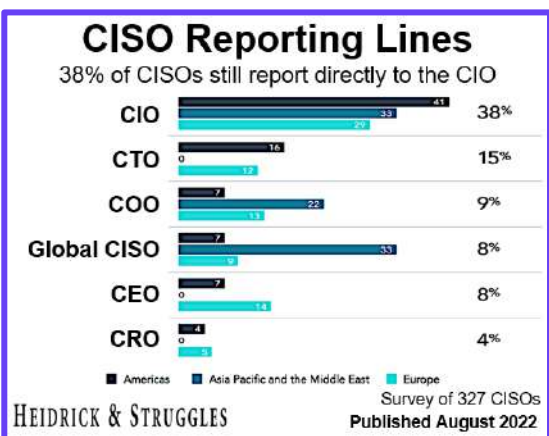
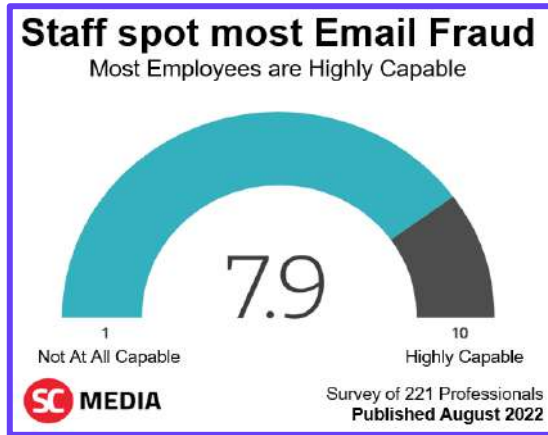
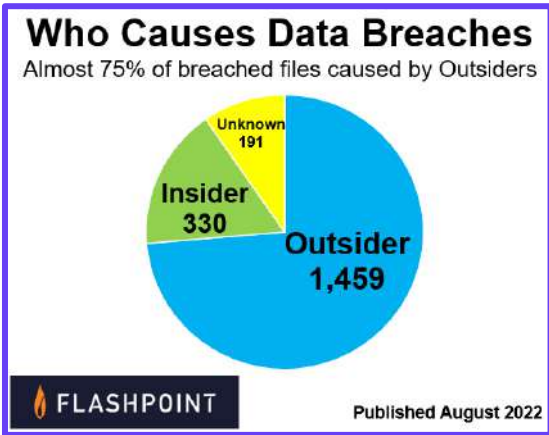
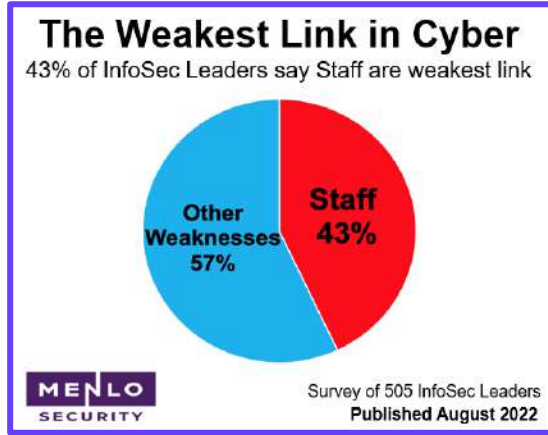
Cyber Insights: *Costs and Finances*

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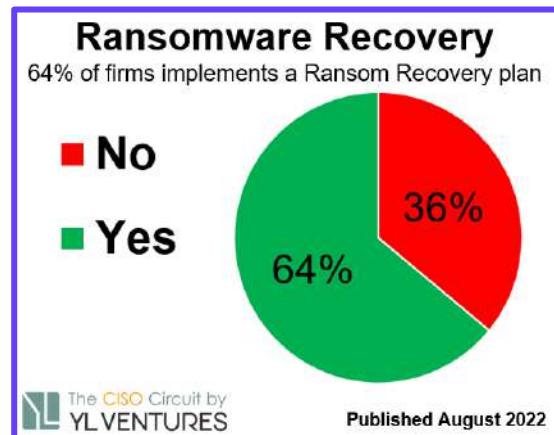
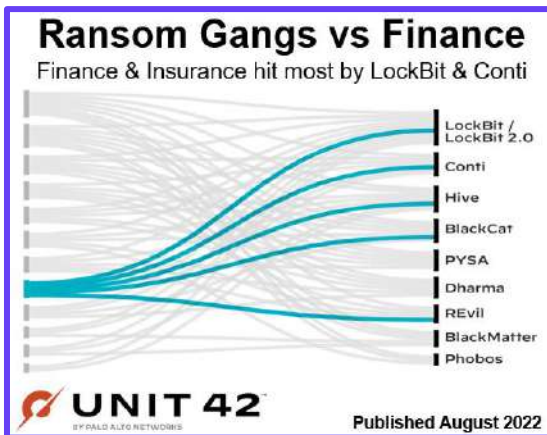
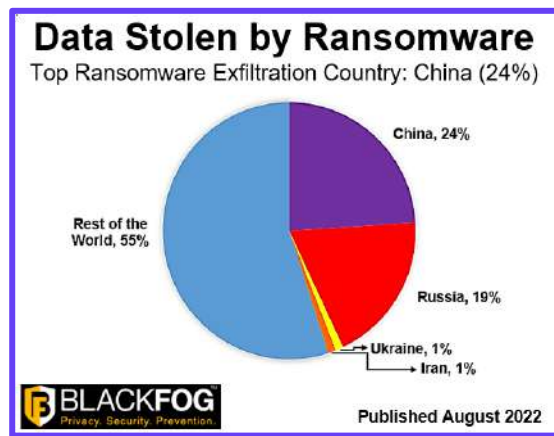
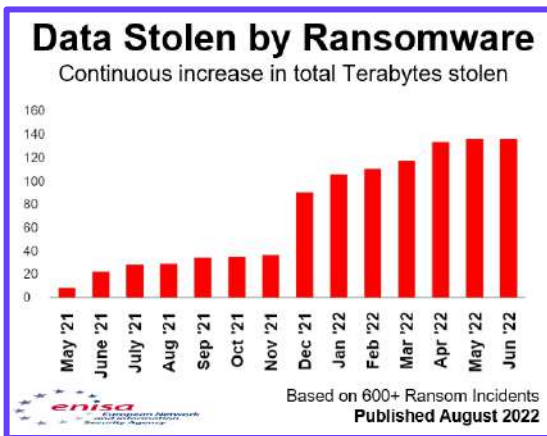
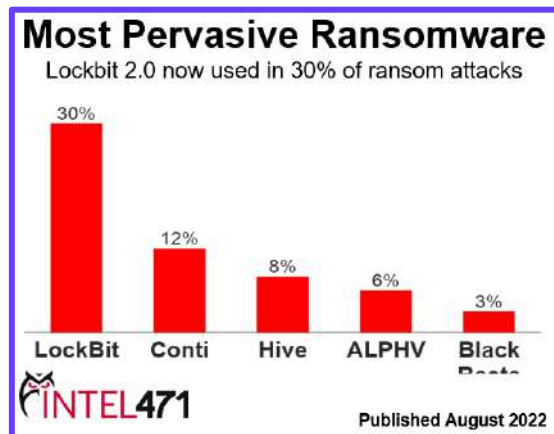
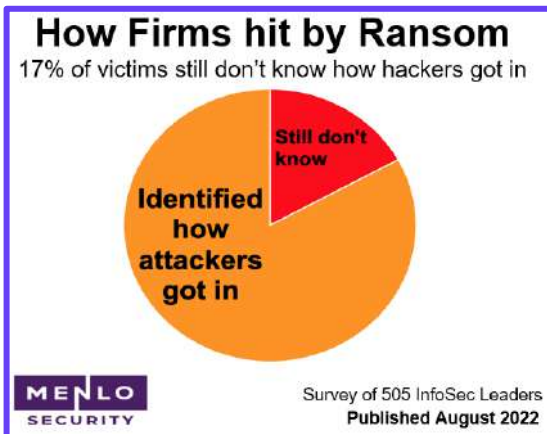
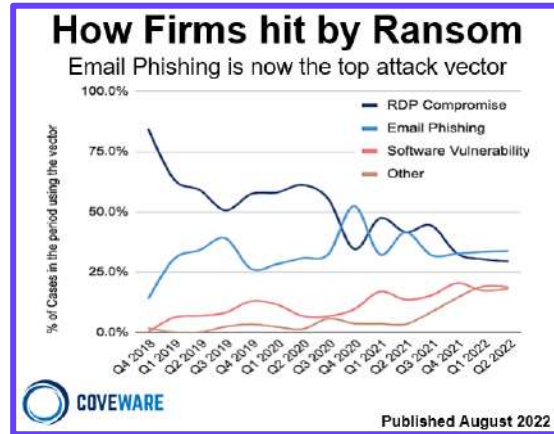
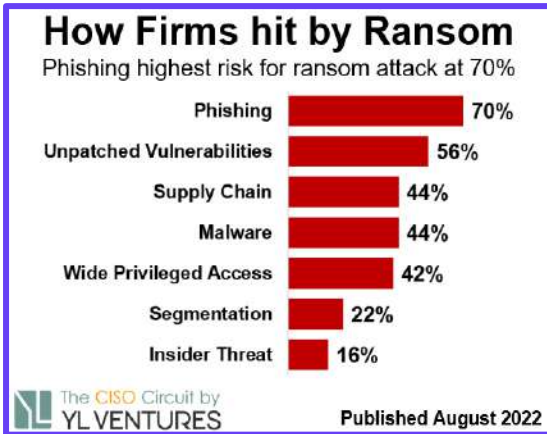
Cyber Insights: *Cyber & People*

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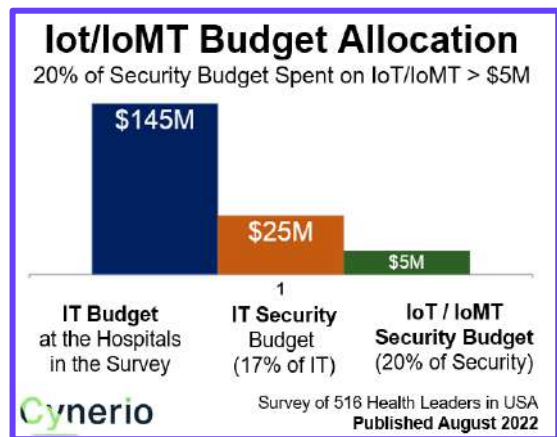
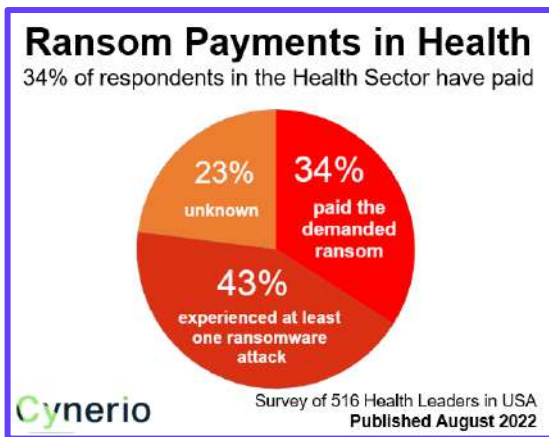
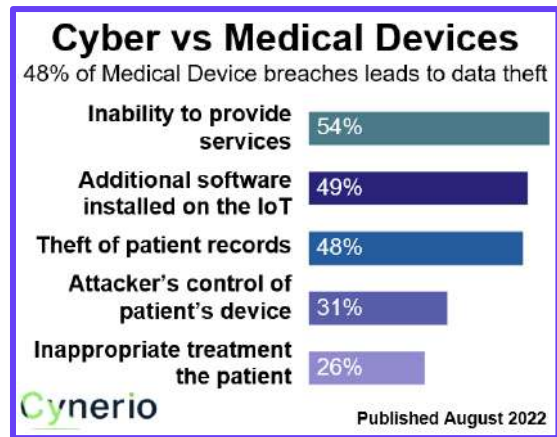
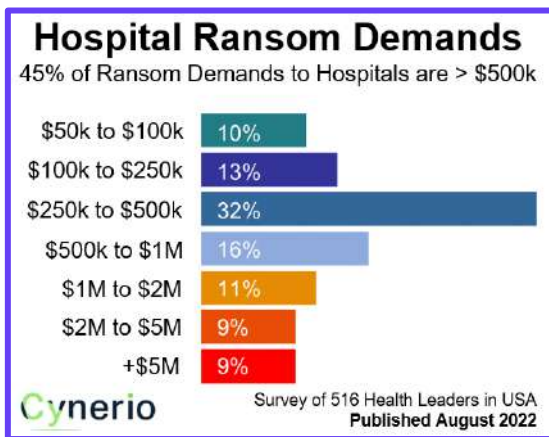
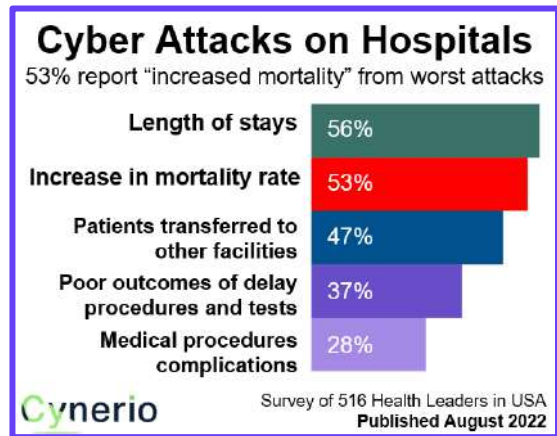
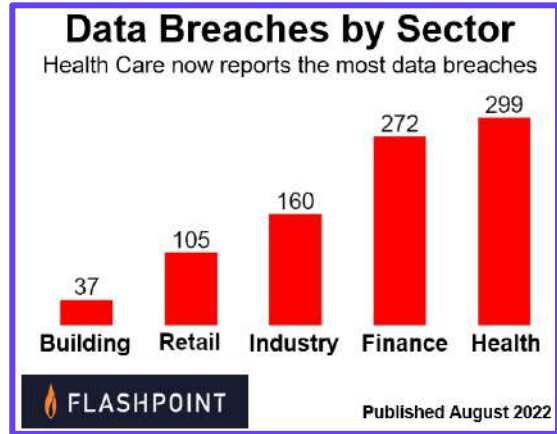
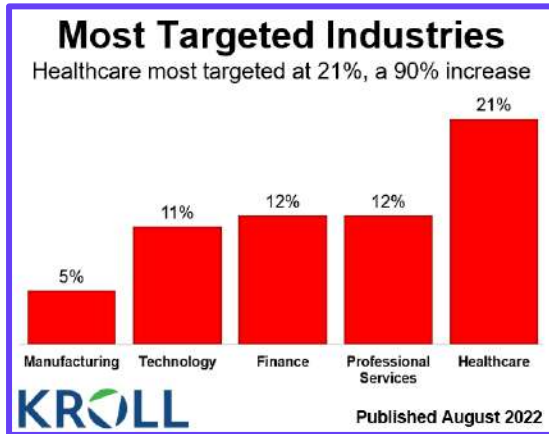
Cyber Insights: *Ransom Vectors & Techniques*

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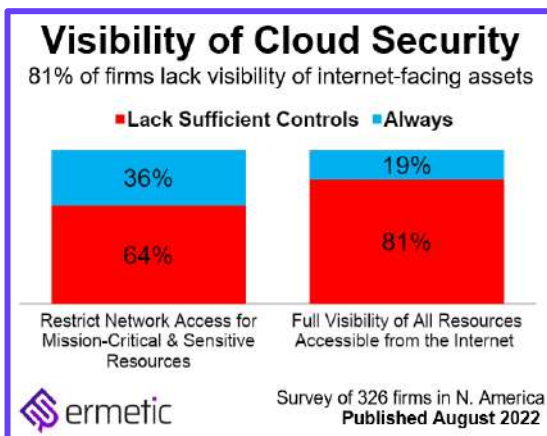
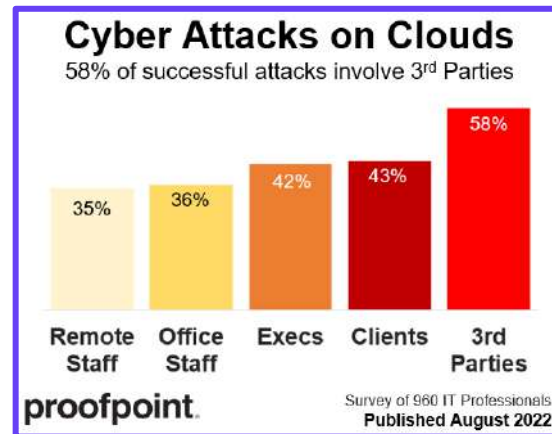
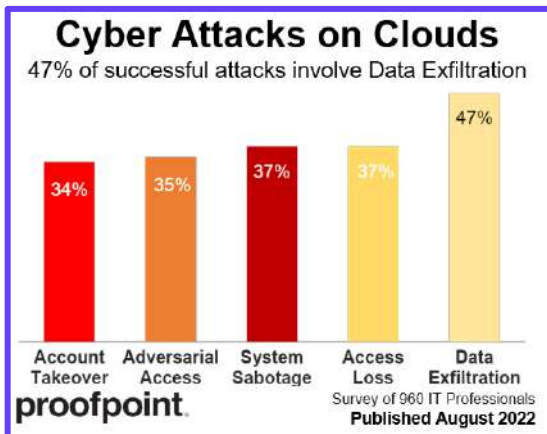
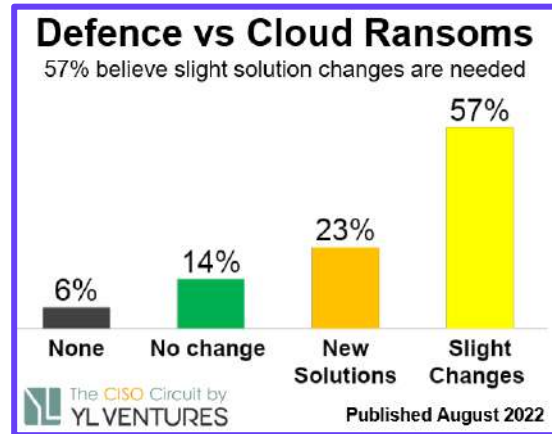
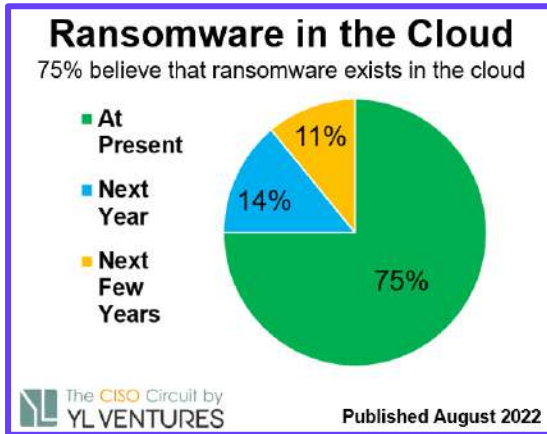
Cyber Insights: *Healthcare Attacks*

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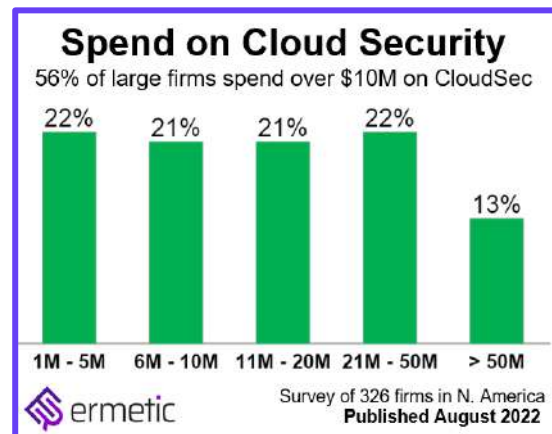
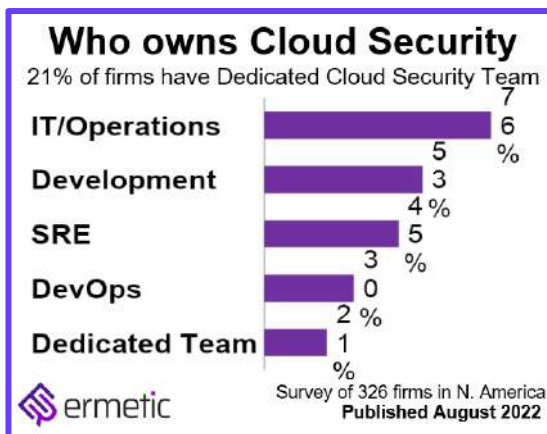


Cyber Insights: *Cloud Security*

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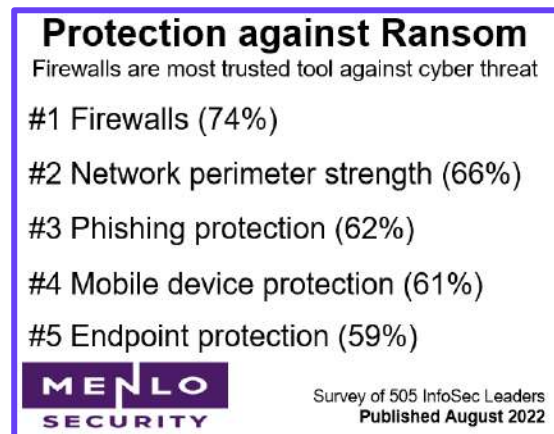
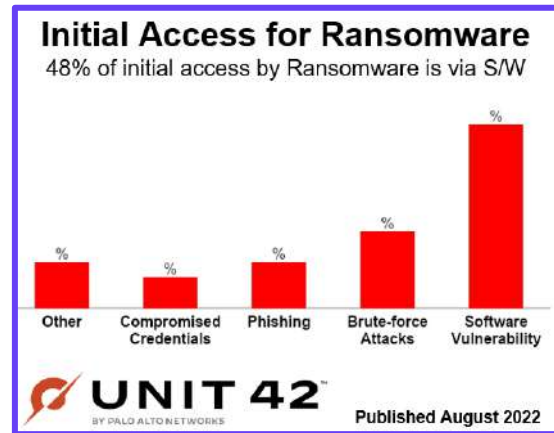
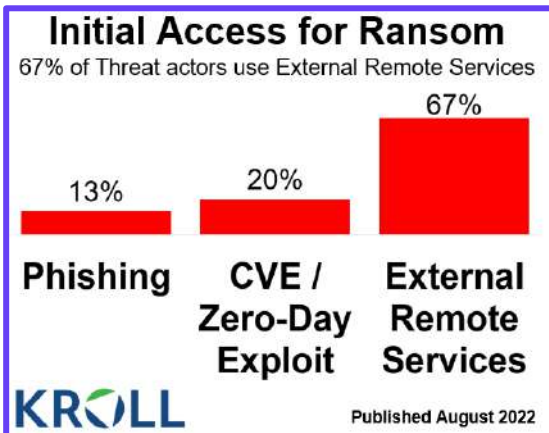
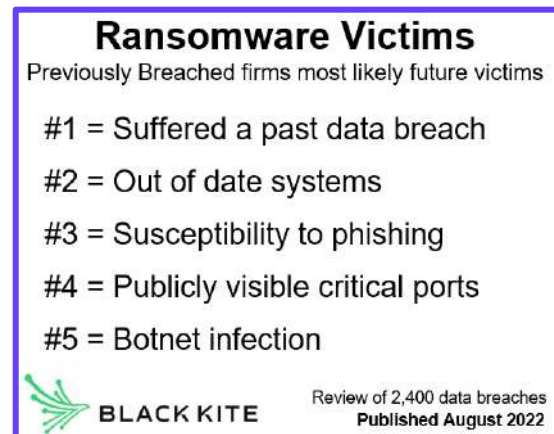
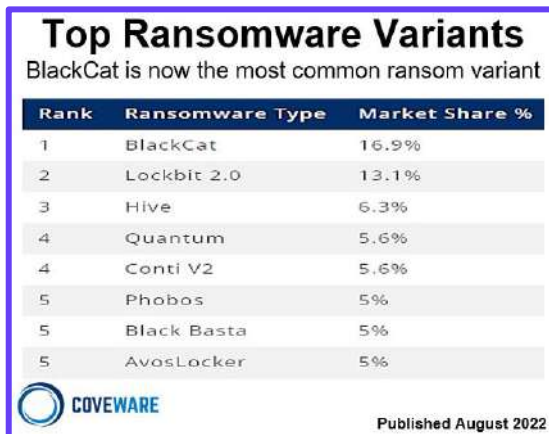
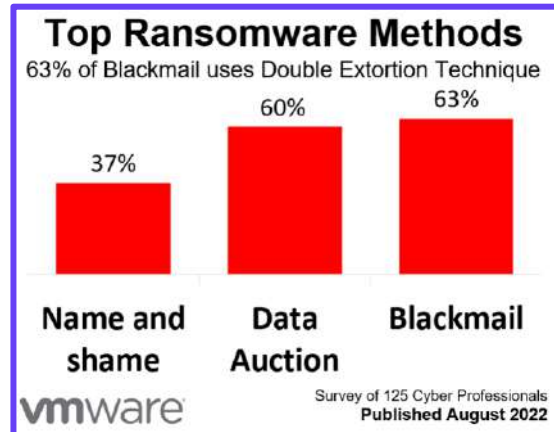
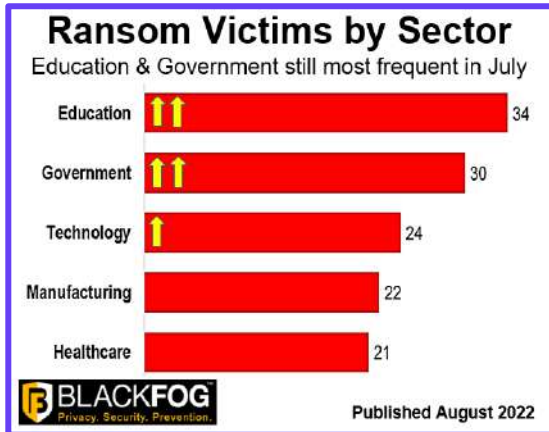


- ### Controls for Cloud Security
- Basic Controls for Managing Access Permissions
- #1 = Policy checking with business functions
 - #2 = Permissions granted just-in-time basis
 - #3 = Automated detection of accessibility
 - #4 = Least Privilege Method access grant
 - #5 = Accessibility & Resources Visibility
- ermetic
Survey of 326 firms in N. America
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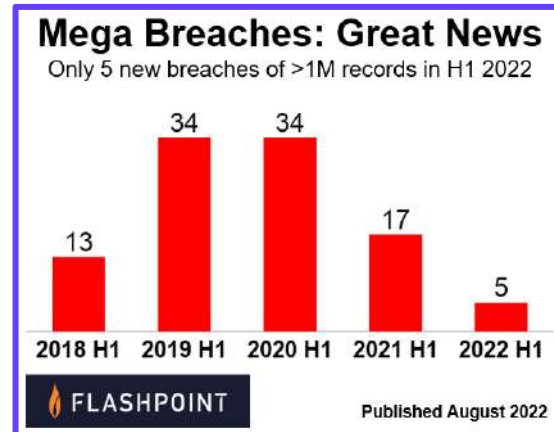
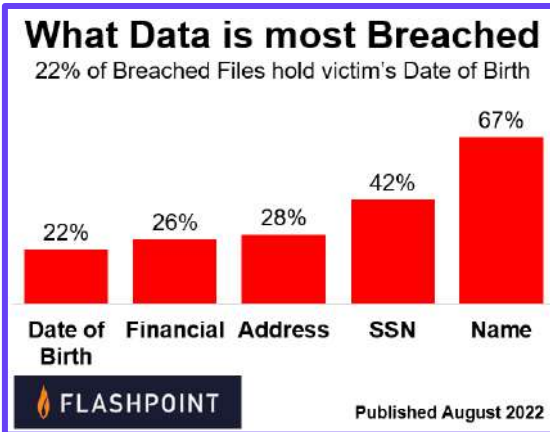
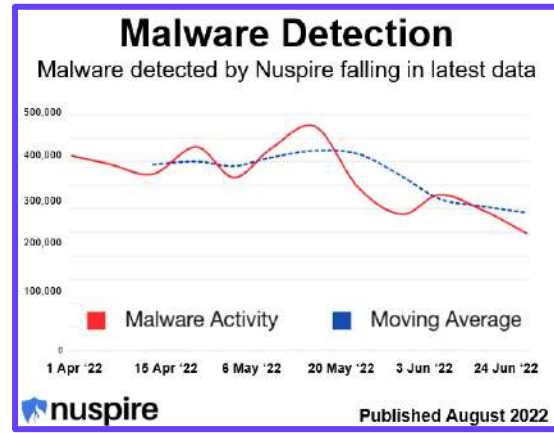
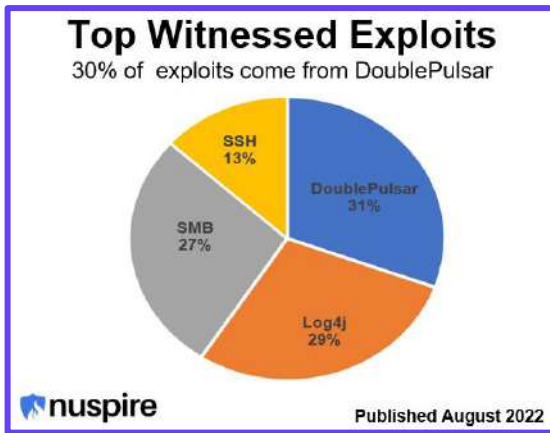
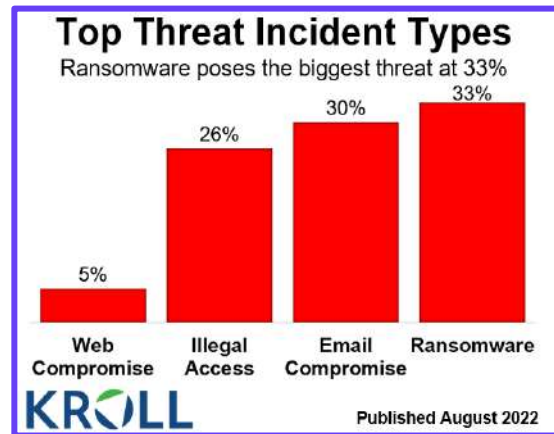
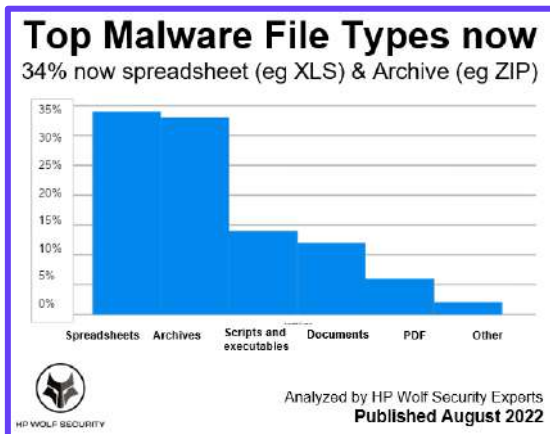
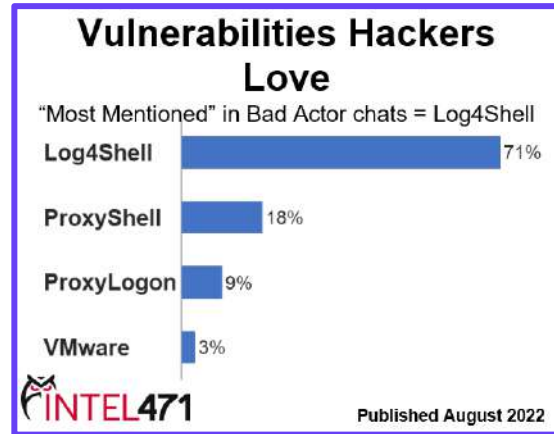
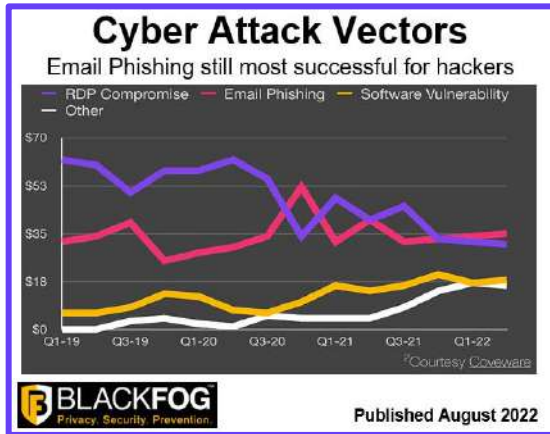
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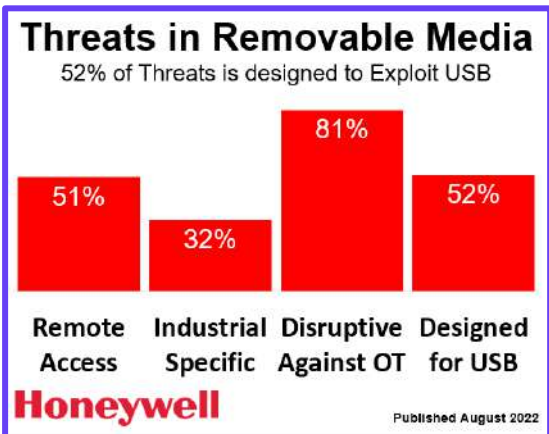
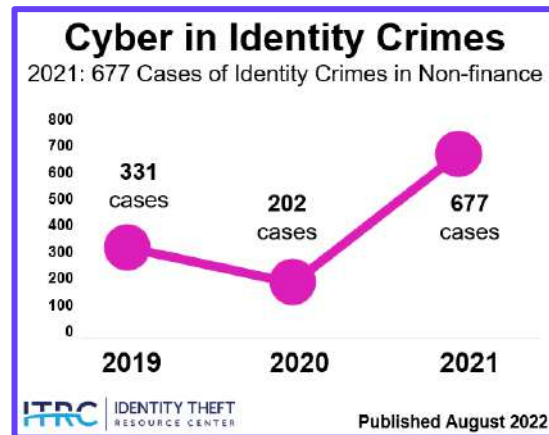
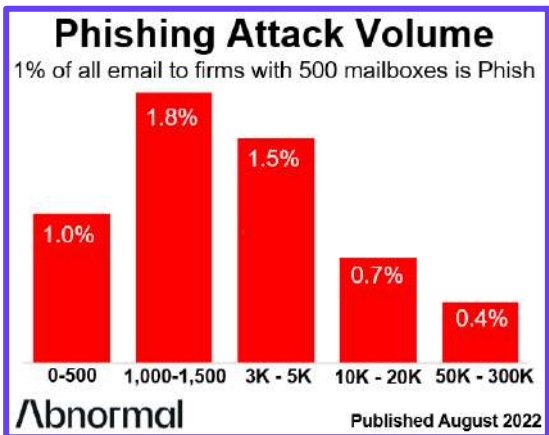
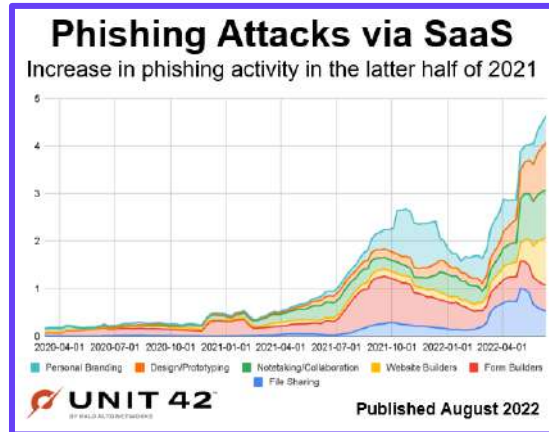
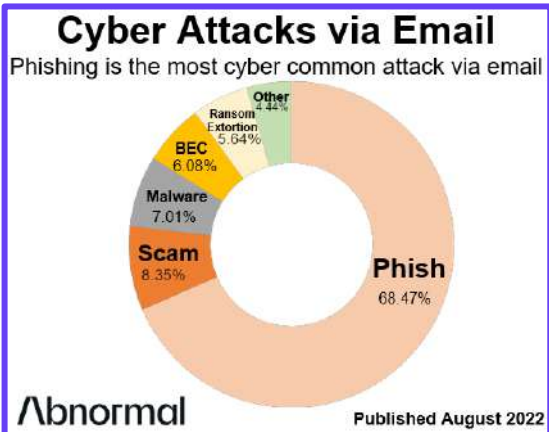
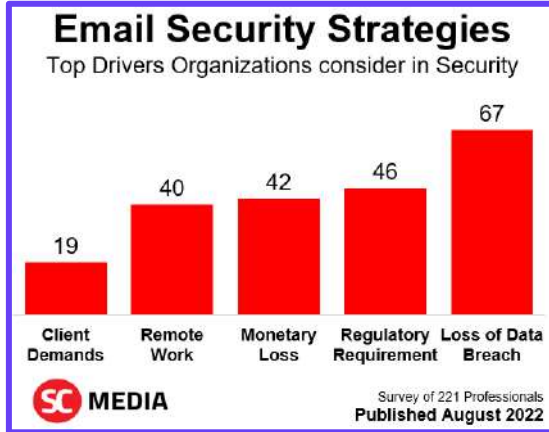
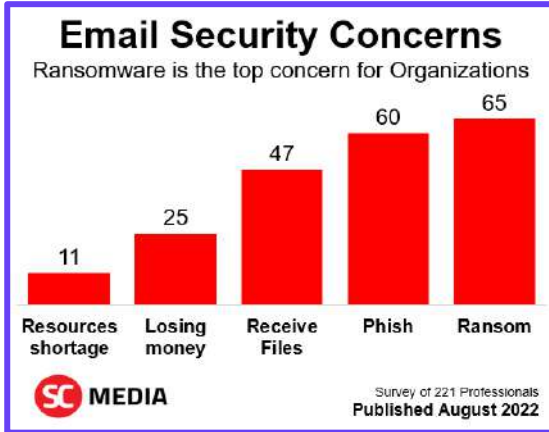
Cyber Insights: *Attacks & Vulnerabilities*

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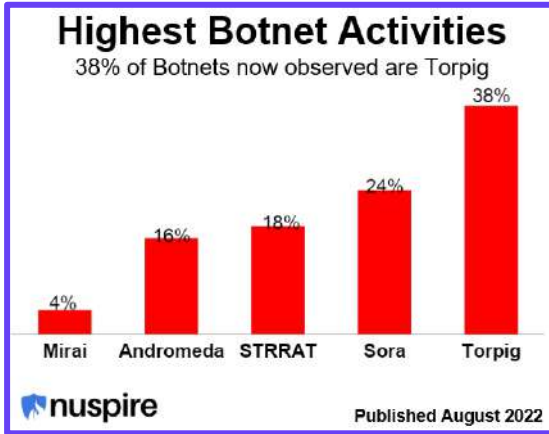
Cyber Insights: *Phish & Email Attacks*

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Cyber Insights: *Practices & Activities*

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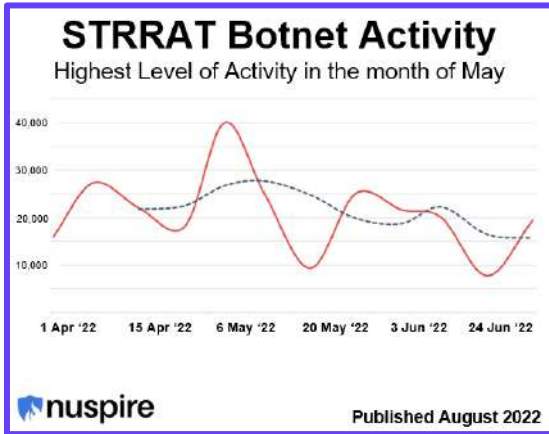
Risk Awareness Practices

Best practices for staff cyber security awareness

- #1 = Use real-world Attack Methods
- #2 = Don't do this alone
- #3 = Don't try to train on everything
- #4 = Make it relevant
- #5 = Treat programme like marketing

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