

# Manufacturing Threat Landscape

Manufacturers Alliance April 2024



**eSENTIRE**  
Threat Response Unit

# Presenter



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# Key Takeaways From TRU Research

THREAT INTELLIGENCE SPOTLIGHT

## Increasing Cyber Resilience Against Cyber Threats Impacting the Manufacturing Industry

- Businesses in manufacturing were the most victimized industry sector by ransomware.
- SMBs made up the majority of all victims.
- Threat Opportunity: Manufacturing orgs had higher exposure to underground services such as credential markets.

- IT transformation + growing attack surface.
- Ransomware remains a major concern.
- Intrusions stemmed from compromised identities or known vulnerabilities.
- Browser-based malware on the rise.

RANSOMWARE REPORT

## Ransomware Readiness: How SMBs Can Prepare for the Rising Threat of Ransomware-as-a-Service, Initial Access Brokers, and Credential Theft

January 2024



# Technology Transformation Enables Efficiency But Increases Attack Surface



Cloud Migration

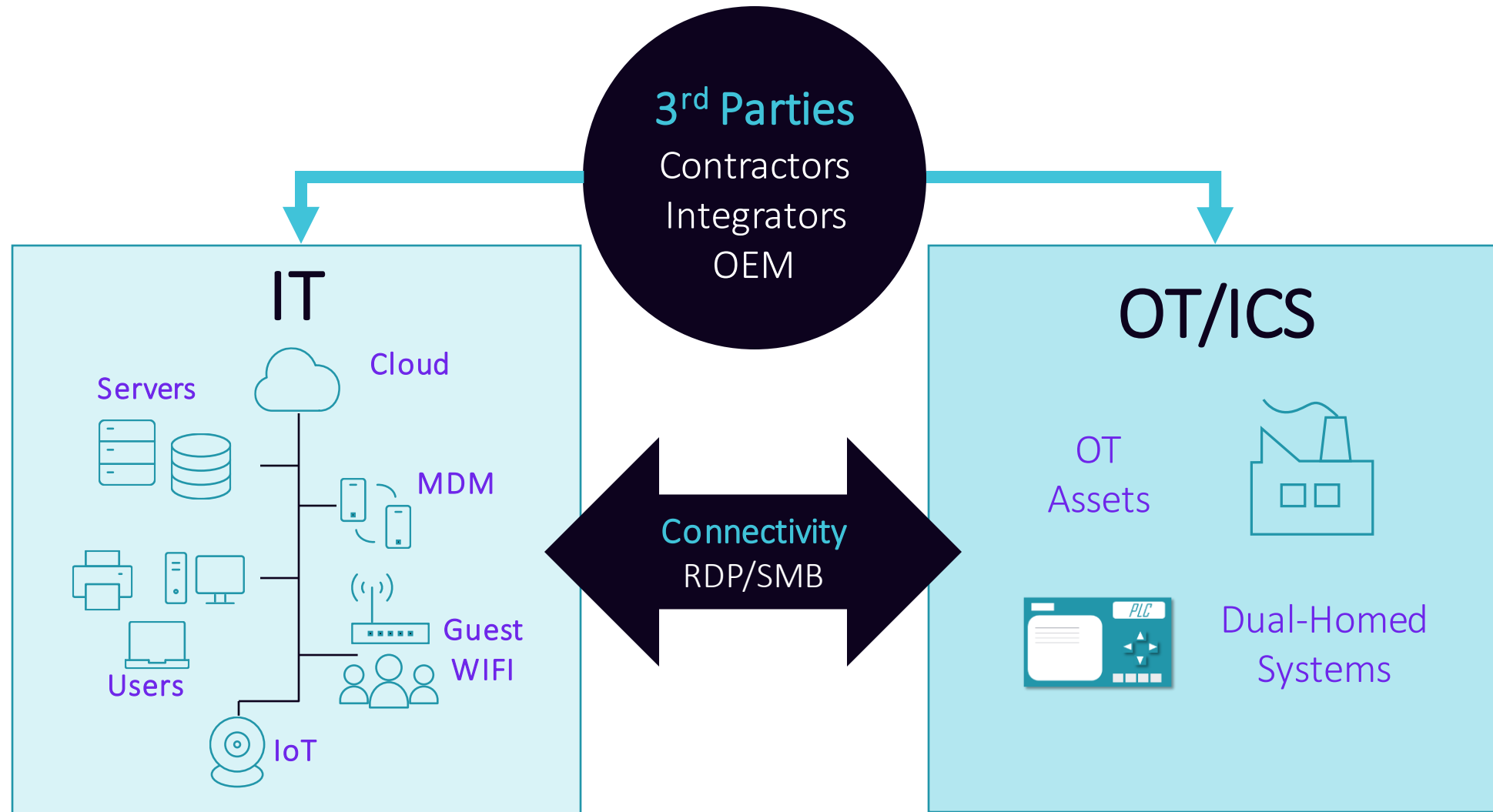


Edge Devices



Remote Access  
Services

# Threat Surface Scope Creep



# Threat Surface Scope Creep – Visibility Lagging Behind

**80%**

Of manufacturing organizations have limited visibility into their environments

- Dragos, ICS/OT Cybersecurity Year in Review 2022

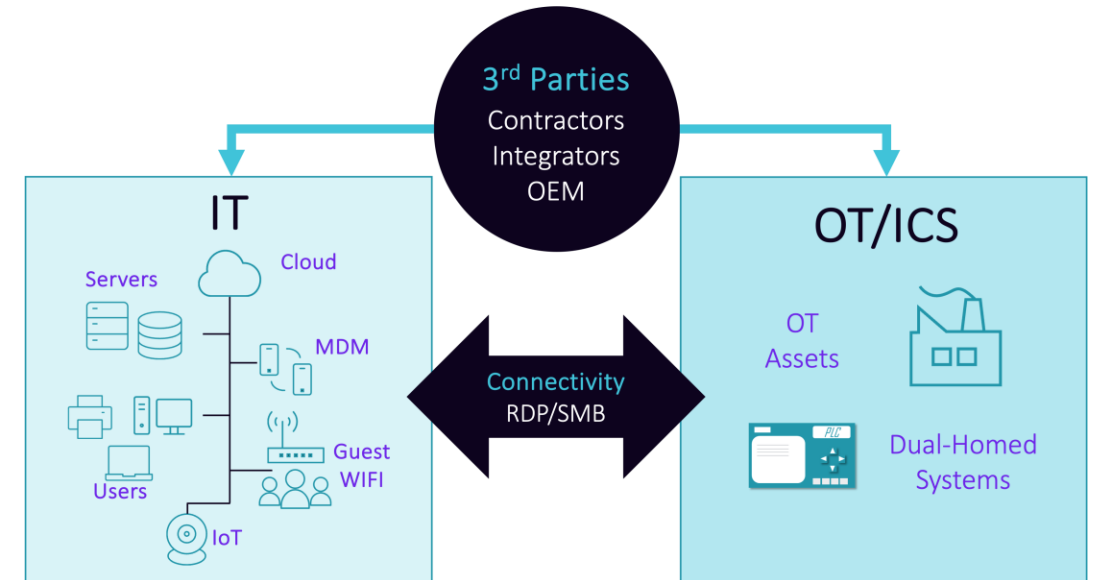
Majority of intrusions leveraged valid credentials or unpatched vulnerabilities

- eSentire Threat Intelligence Spotlight 2023

## Ask Your Team

- ☐ Do we have phish-resistant MFA?
- ☐ How are we prioritizing vulns?
- ☐ Can unmanaged devices access network resources?
- ☐ How are we monitoring? North/South? East/West?

RE: Vendors. Trust, But Verify



# Attack Trends



Web Browsing  
Threats



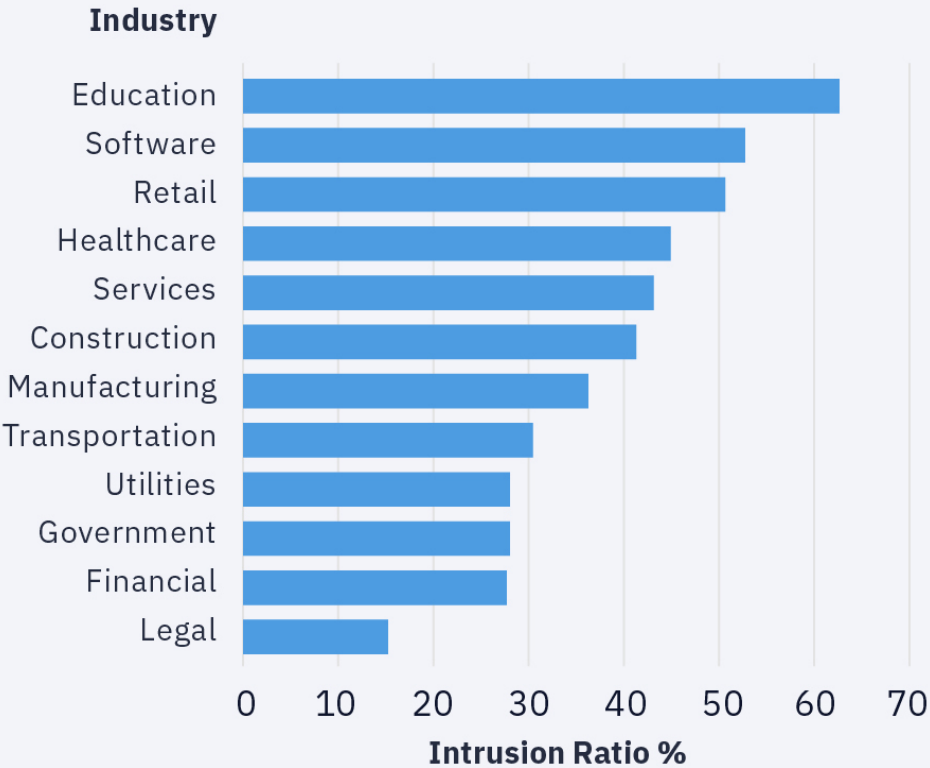
Email Threats



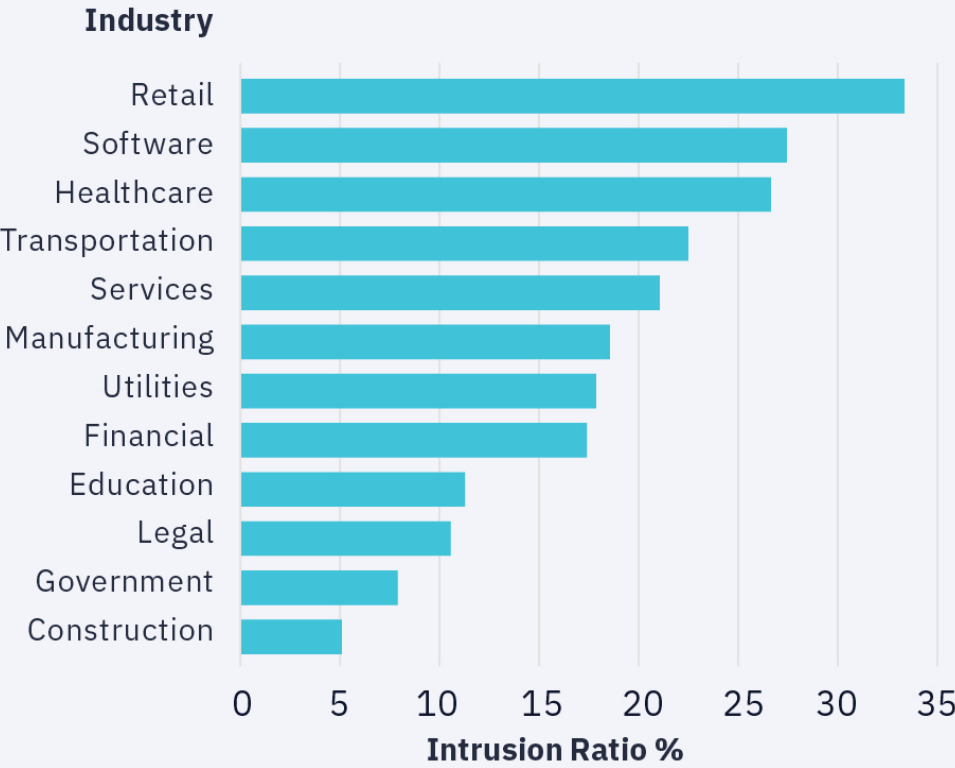
Unmanaged  
Devices

# Industry Intrusion Ratios

Overall Intrusion Ratio



Ransomware Intrusion Ratio





# Initial Access Trends

## *Email outpaced by browser-based attacks*

### Browser Attacks

- Fake Browser Update
- Malicious Search Advertisement
- Malicious Search Result

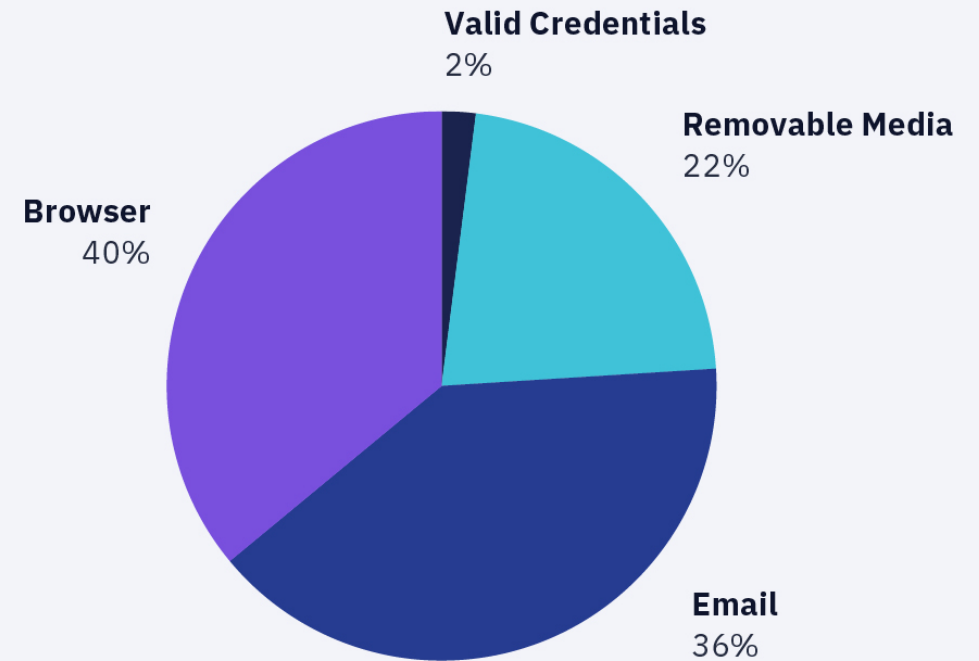
### USB Worms a concern for manufacturing

- Raspberry Robin

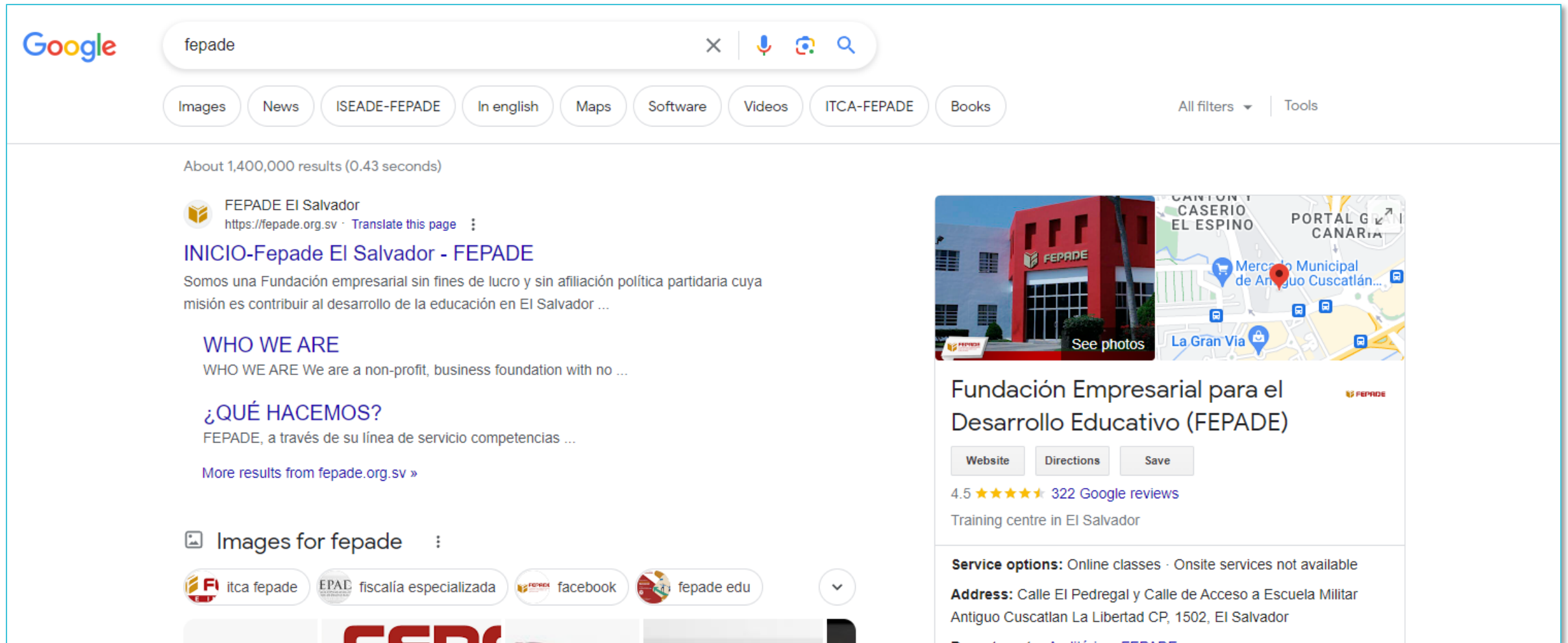
### Valid Credentials

- Low volume but high impact

#### Initial Access Vectors



# Web Threat Example – Clear Fake Campaign



The screenshot shows a Google search for "fepade". The search bar at the top contains the text "fepade" and the Google logo. Below the search bar, there are tabs for "Images", "News", "ISEADE-FEPADE", "In english", "Maps", "Software", "Videos", "ITCA-FEPADE", and "Books". The search results show "About 1,400,000 results (0.43 seconds)".

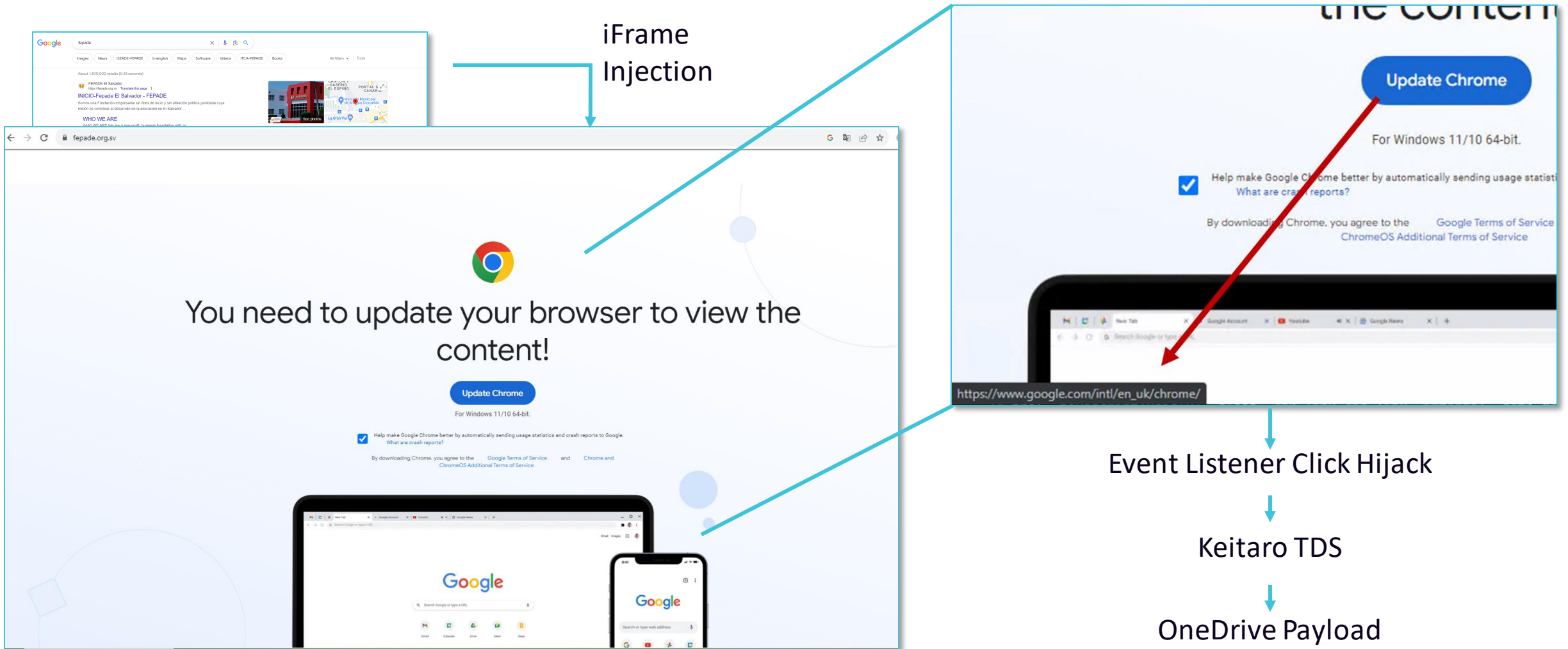
The first result is for "FEPADE El Salvador" with the URL <https://fepade.org.sv>. The title is "INICIO-Fepade El Salvador - FEPADE". The description says: "Somos una Fundación empresarial sin fines de lucro y sin afiliación política partidaria cuya misión es contribuir al desarrollo de la educación en El Salvador ...". Below this, there is a section titled "WHO WE ARE" with the text "WHO WE ARE We are a non-profit, business foundation with no ...". Another section titled "¿QUÉ HACEMOS?" says "FEPADE, a través de su línea de servicio competencias ...". At the bottom of the search results, there is a link "More results from fepade.org.sv »".

Below the search results, there is a section titled "Images for fepade" with a grid of images. The first image shows a red building with the FEPADE logo. The second image shows a map of the location. The third image shows a building with the FEPADE logo. The fourth image shows a building with the FEPADE logo.

On the right side of the search results, there is a Google Maps listing for "Fundación Empresarial para el Desarrollo Educativo (FEPADE)". The listing includes a photo of the building, a map showing the location, and the following information:

- Website** **Directions** **Save**
- 4.5 ★★★★★ 322 Google reviews
- Training centre in El Salvador
- Service options:** Online classes · Onsite services not available
- Address:** Calle El Pedregal y Calle de Acceso a Escuela Militar Antiguo Cuscatlan La Libertad CP, 1502, El Salvador

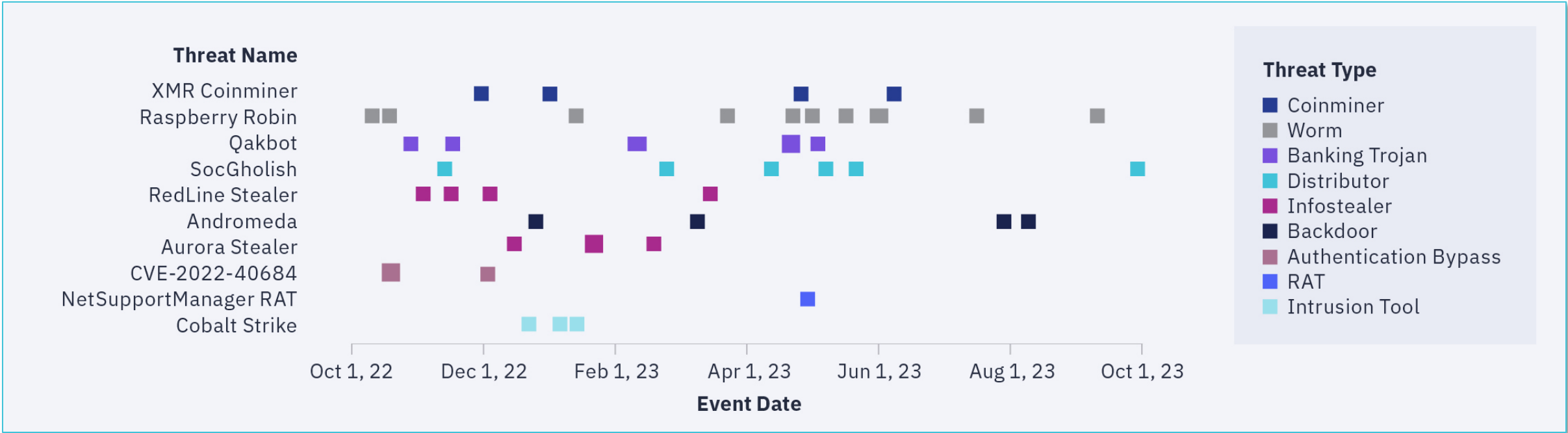
# Web Threat Example – Clear Fake Campaign



<https://www.esentire.com/blog/fake-browser-updates-distribute-lummac-stealer-amadey-and-privateloader-malware>

# Disrupted Threats in 2023

*eSentire's Threat Response Unit (TRU) detected and responded to nearly 129 attacks against manufacturers in the 12-month period from October 2022 through September 2023, a significant increase compared to the 30 attacks recorded in the previous year from October 2021 through September 2022.*



# Ransomware & The Underground



Fraud Markets



Initial Access  
Brokers



RaaS

# Microsoft Digital Defense Report 2023

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1

80-90% of all successful ransomware compromises originate through unmanaged devices.

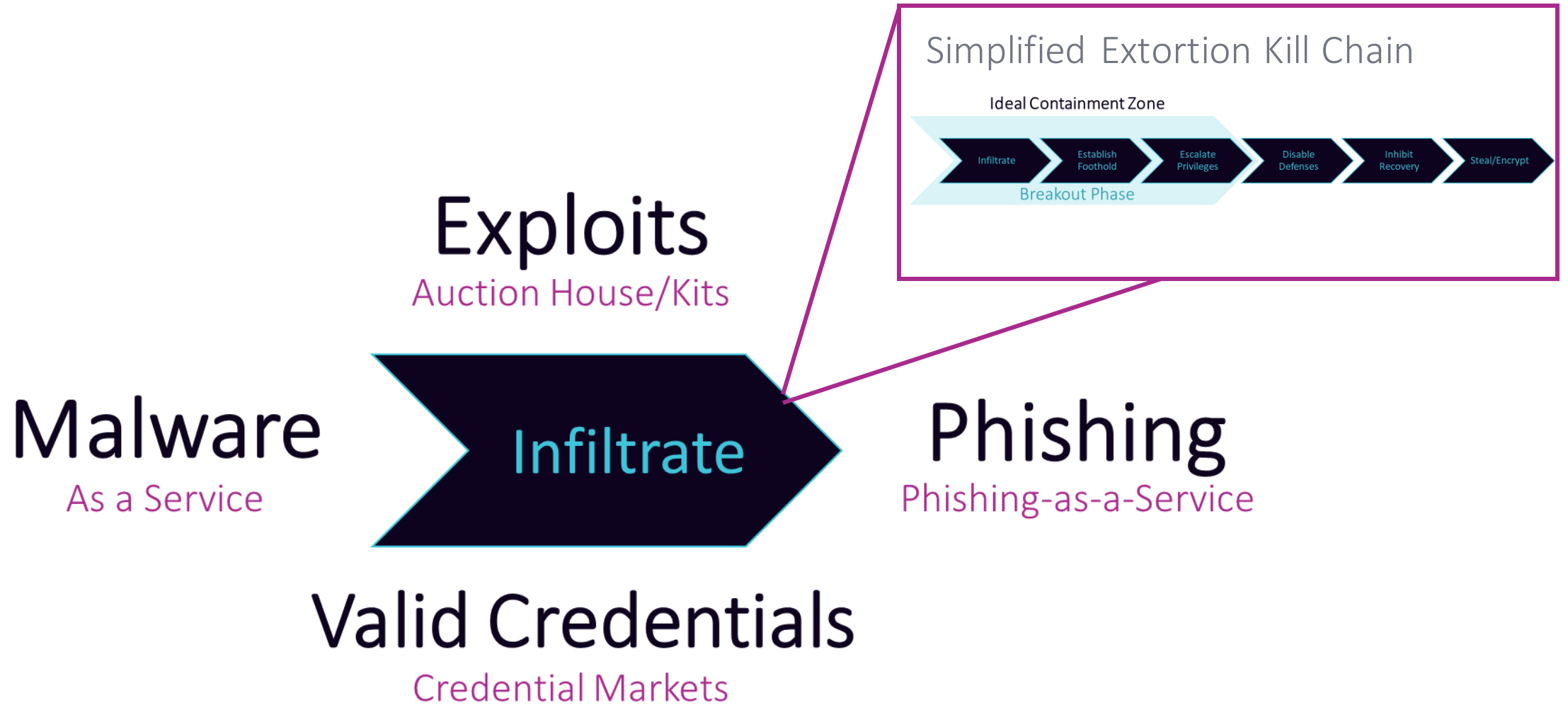
2

Human-operated ransomware attacks are up more than 200%.

\*To keep pace with adversaries, we need to look beyond the network edge.

# How do Ransomware Groups Infiltrate Networks?

Dark Web/Underground Services are Here to Help





# Credential Markets

## Russian Market & Telegram

The screenshot displays a web interface for a credential market. The main table lists stolen data with columns: Stealer, Country, Links, Outlook, Info, Struct, Date, and Size. A large 'RUSSIAN MARKET' watermark is overlaid on the table. The sidebar on the right includes a search bar and a list of stealers with their respective counts.

Stealer	Country	Links	Outlook	Info	Struct	Date	Size
Redline	Florida	accounts.google.com   gyzazo.com   amazon.com   c.comenity.net   adoptausoldier.org   c.comenity.net   parmls.paragonreels.com   m.dearwaveinc.com   santarosa.focusschoolsoftware.com   sts.santarosa.k12.fl.us   Show more...	-	-	archive.zip	2022.08.16	0.37Mb
Redline	New Jersey	idmsa.apple.com   walmart.com   idmsa.apple.com   netflix.com   amazon.com   login.live.com   zoom.us   store.steampowered.com   accounts.google.com   sso.bergen.edu   Show more...	-	-	archive.zip	2022.08.16	0.18Mb
Redline	Nevada	accounts.google.com   app.perpay.com   unlocktool.net   mediafire.com   my.utomik.com   speed.btt.network   my.utomik.com   cdn.plaid.com   cmd5.org	-	-	archive.zip	2022.08.16	0.22Mb
Redline	Georgia	more...	-	-	archive.zip	2022.08.16	0.22Mb
Redline	Massachusetts	more...	-	-	archive.zip	2022.08.14	0.06Mb
Redline	New York	roblox.com	-	-	archive.zip	2022.08.15	0.01Mb
Redline	Pennsylvania	signin.ebay.com   auth.riotgames.com   reddit.com   twitch.tv   accounts.google.com   steamcommunity.com   signin.ebay.com   paypal.com   twitter.com   accounts.google.com   Show more...	-	-	archive.zip	2022.08.16	0.23Mb
Redline	Arizona	paramountplus.com	-	-	archive.zip	2022.08.15	0.11Mb

**Stealer:**

- redline (1893706)
- redline (1893706)
- vidar (1012571)
- raccoon (492361)
- taurus (94453)
- azorult (48120)
- United States (61955)
- India (IN) (66178)
- Mexico (63590)
- United States (61955)
- France (54203)
- Germany (49296)
- India (49296)

Russian Market Fraud Shop

The screenshot shows a Telegram chat interface for a public channel named 'Klaus Cloud [Public]'. The post includes a download icon, the username '@klaus\_cloud\_public', the file name '82logs.zip', and the size '144.6 MB'. It also displays '210.000 logs per month' and a list of features: 'Daily 7000', 'Personal traffic', 'Fresh 100%', and 'Daily update'. Pricing is listed for various durations: 1 week - 50\$, 2 weeks - 80\$, 1 month - 120\$, 2 months - 300\$, and Lifetime - 2100\$. A note states that a personal cloud can be purchased for 1 user for details in PM. The password is provided as 'https://t.me/klaus\_cloud\_public'. Payment methods listed are Btc, Ltc, Eth, Usdt trc-20, Doge, and Dash. The contact is '@klaus\_cloud'. The post was made on October 21 at 4:52 PM with 145 views.

**Klaus Cloud [Public]**

October 21

@klaus\_cloud\_public 82logs.zip  
144.6 MB

210.000 logs per month

Daily 7000  
Personal traffic  
Fresh 100%  
Daily update

price:  
1 week - 50\$  
2 weeks - 80\$  
1 month - 120\$  
2 months - 300\$  
Lifetime - 2100\$

It is possible to purchase a personal cloud for 1 user for details in PM: @klaus\_cloud

password: [https://t.me/klaus\\_cloud\\_public](https://t.me/klaus_cloud_public)

Payment methods  
Btc, Ltc, Eth, Usdt trc-20, Doge, Dash

Contact: @klaus\_cloud

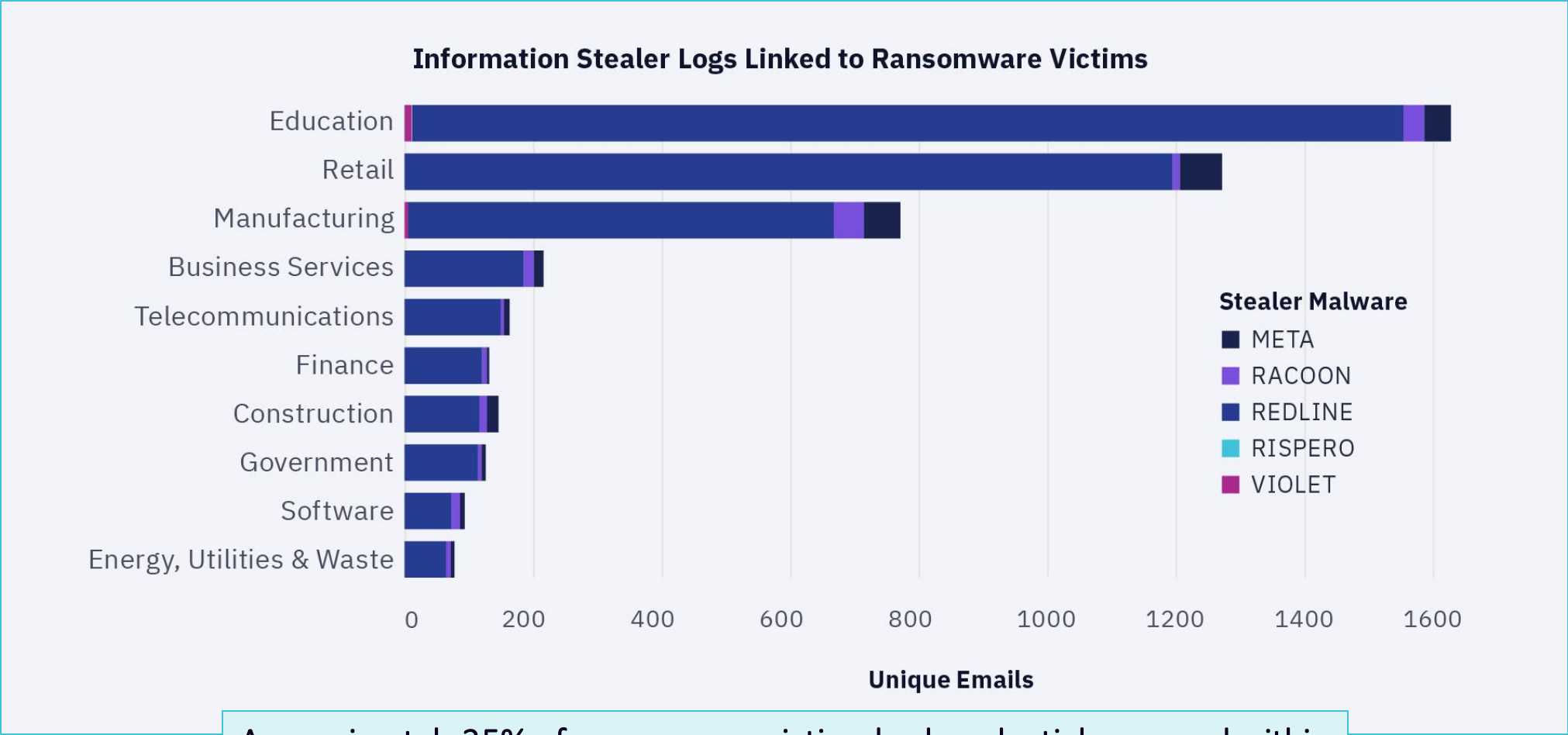
145 4:52 PM

Klaus Cloud Telegram Shop



# Credential Exposure

## Stealer Logs Linked to Ransomware Victims



Approximately 25% of ransomware victims had credentials exposed within 30 days of their identity disclosure on ransomware leak sites.



# Initial Access Auctions

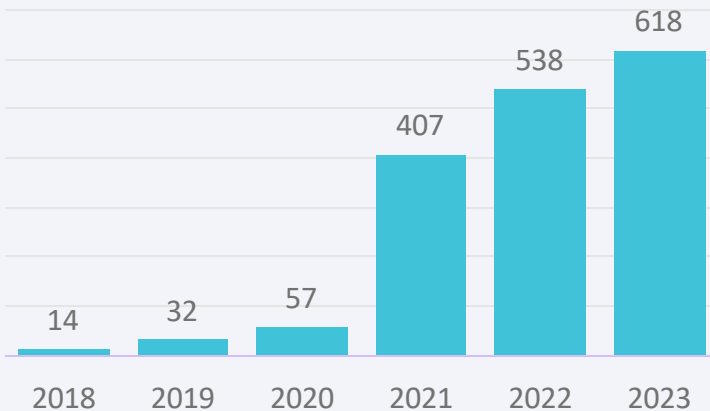
## Auctions Held on Criminal Forums

*Footholds Valued by Revenue, Industry*

## Increasing Auctions

*Extortion Likely Driving Demand*

Network Access Auctions by Year



### Auctions

Sale of goods and services in an auction format: with a starting price, rates, bidding for a lot. Read the rules! Do not participate in auctions if you are not sure of your capabilities.

Follow 134

Mark forum as read Start new topic

1 2 3 4 5 6 NEXT Page 1 of 269 SORT BY

- **Правила проведения аукционов**  
By admin, December 23, 2014  
1 reply 20745 views April 18, 2019
- **USA, DA, 20+kk**  
By organon, 6 minutes ago
- **Продам 70к SSN+DOB**  
By lockdown\_, 23 minutes ago
- **Shop UK iframe**  
By charley88, 31 minutes ago
- **продам SSN+DOB+DL**  
By lockdown\_, 29 minutes ago
- **Шоп FI OpenCart 260 заказов мес**  
By 0x0000, 20 hours ago
- **Свежие корпы с логов 11.4kk #9**  
By pride, September 26
- **RDP access USA admin, 24\$M**  
By Roblette, 1 hour ago
- **rdp access France real estate, \$5M**  
By Roblette, 1 hour ago
- **url:login:pass Australia AU BANK**  
By resetmyname, yesterday at 07:43 AM
- **Magento Extensions Shop**  
By charley88, October 24
- **Shop US form**  
By charley88, October 24

### USA DA VPN \$380KK FORTI VPN only

By Howell, October 21 in Auctions

**Howell**  
byte

Paid registration  
0 posts  
Joined 09/24/23 (ID: 153827)  
Activity  
хакинг / hacking

Posted October 21

USA DA VPN  
Rev 380KK\$  
Telcos provider  
Fortigate SSL  
Panel+Client

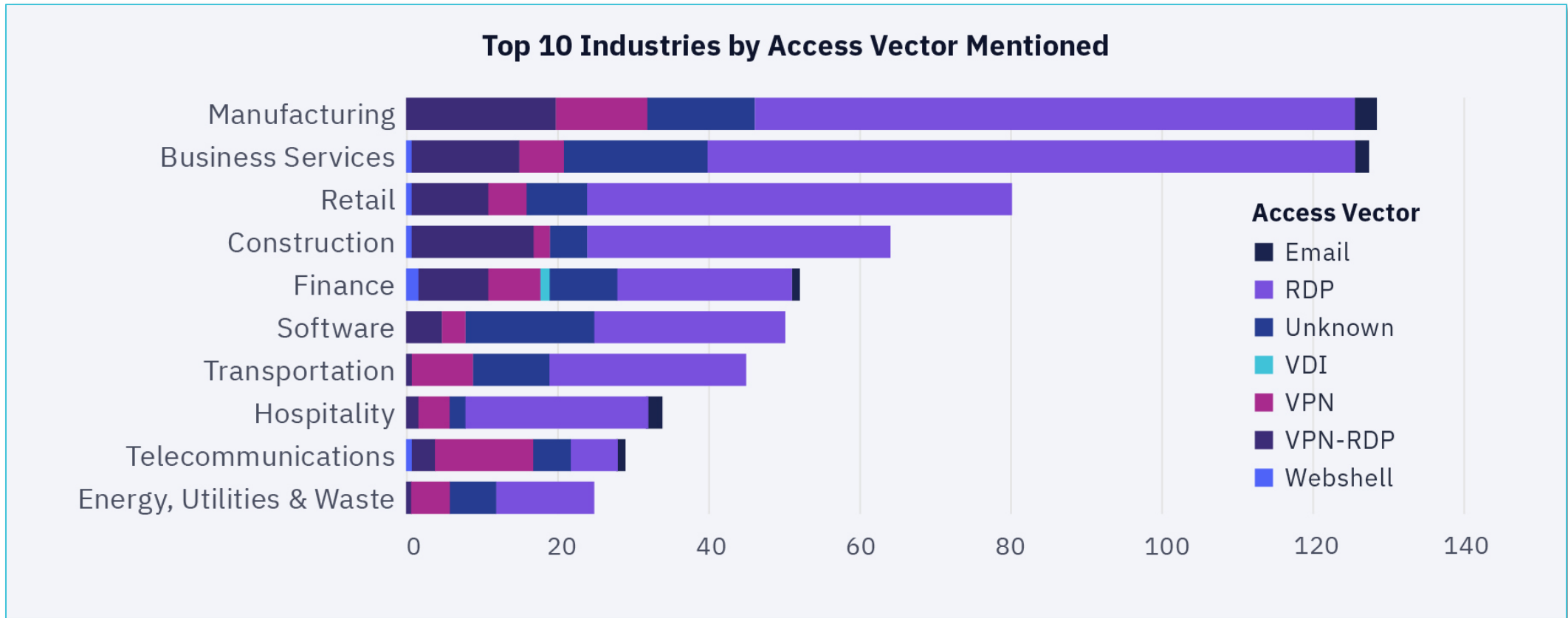
start 2000\$  
step 500\$  
blitz 5000\$

Full escrow.  
Checking accepted.

3 replies 953 views charley88

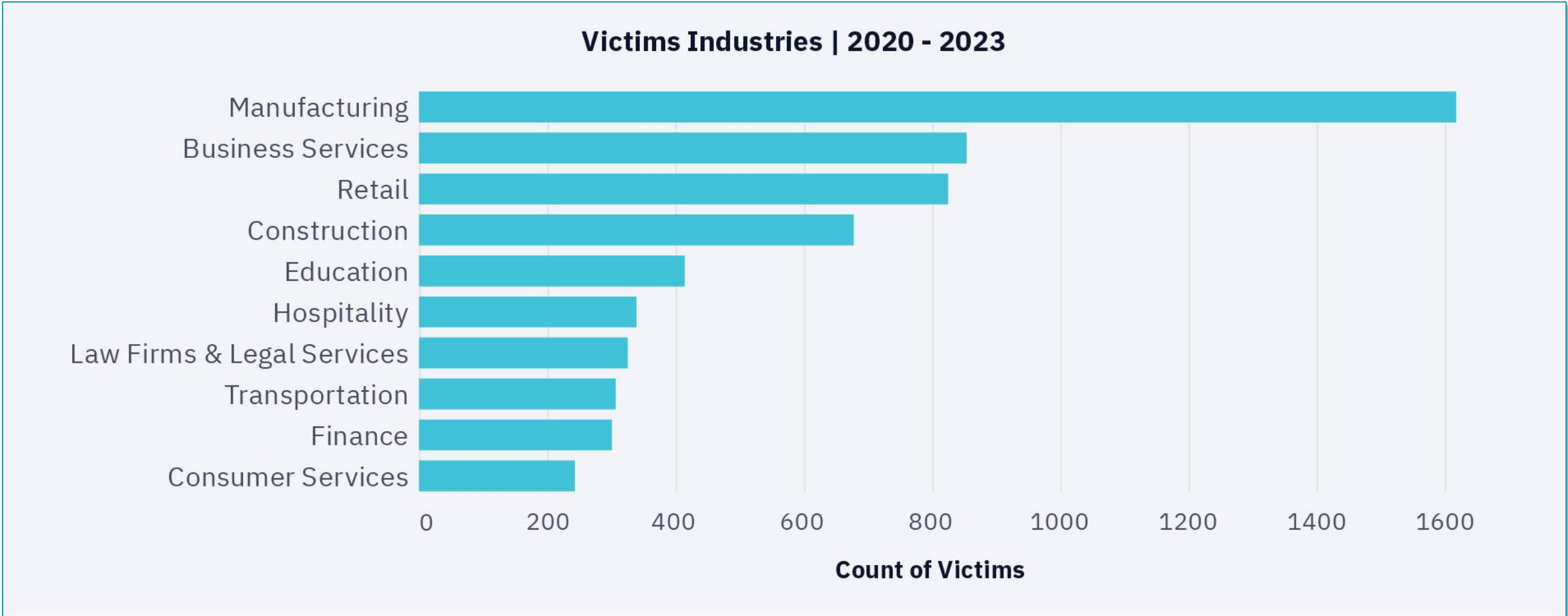
# Industry Exposure in Initial Access Auctions

Manufacturing at Increased Exposure, Remote Desktop Protocol Preferred



- RDP and VPN command the highest prices and are most common.
- Manufacturing, Business Services and Retail makeup top auctions.

# Industry Exposure in Ransomware Leak Sites



# Recommendations

## Understand, Prepare, and Predict Cyber Threats

- Ensure your phishing and security awareness training program covers both **email** and **browser-based** threats
- Secure your edge devices and services
- Reduce the impact of compromised credentials
  - See -> **MFA**
- Consider dark web/underground monitoring capability

## Detect, Investigate, Disrupt, and Contain Cyberattacks

- Centralize logging for all edge devices
- Monitor log-on activity for **remote access services**, such as VPN/RDP
- Remediate malware infections **as quickly as possible**

## Eradicate Threats and Return to Standard Operations

- Identify the type of ransomware and/or the threat actors behind the attack, if possible, to determine if there is a possible decryption key already available
- Create, maintain, and exercise a strong cyber incident response plan and associated communications plan that includes response and notification procedures for a ransomware incident

# TRU's Latest Research Reports

DOWNLOAD NOW >



RANSOMWARE REPORT

## **Ransomware Readiness: How SMBs Can Prepare for the Rising Threat of Ransomware-as-a-Service, Initial Access Brokers, and Credential Theft**

January 2024



DOWNLOAD NOW >



THREAT INTELLIGENCE SPOTLIGHT

## **Increasing Cyber Resilience Against Cyber Threats Impacting the Manufacturing Industry**

