



# DIVING INTO THE UNDERGROUND MARKET OF STEALER LOGS

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# ABOUT ME



- Threat Researcher at Cyble
- TA at StationX
- Masters in Cybersecurity at Georgia Tech
- Presented at conferences



## Hobbies

- Hiking
- Lockpicking
- Gaming/Streaming

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# AGENDA

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- ❑ Stealers: Introduction
- ❑ Stealer Logs
- ❑ Underground Market Analysis
- ❑ Market beyond Stealer Logs
- ❑ Protection for consumers/business
- ❑ Conclusion



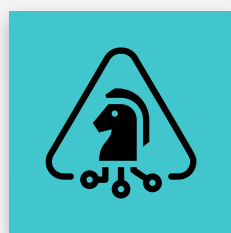


# Stealers: Introduction

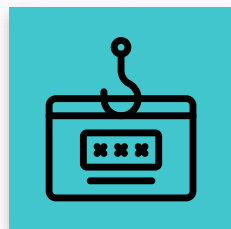
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# WHAT ARE STEALERS?

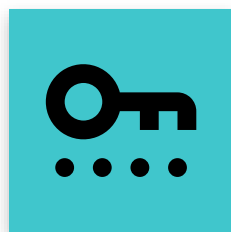
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Trojan



Steal username, password, cookies, autofill, etc.



Used for initial access





# STEALERS OVER TIME

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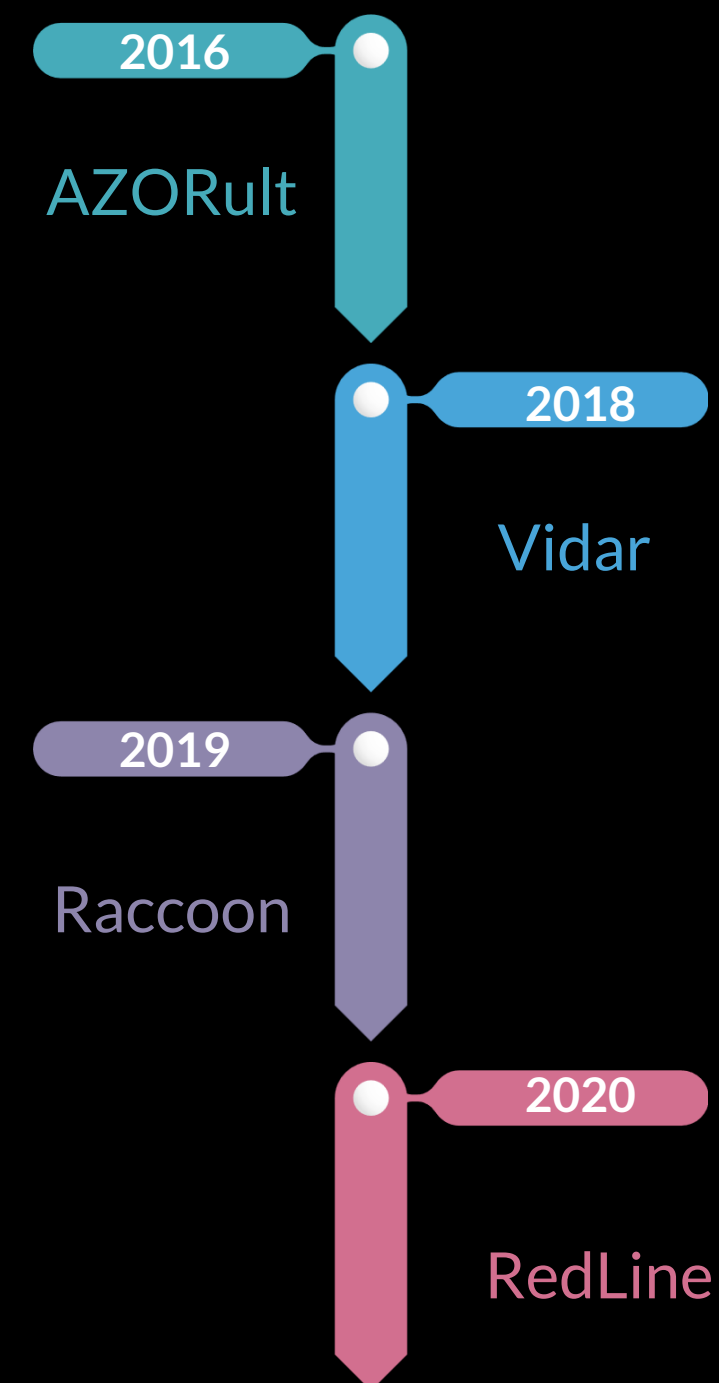
- Zeus (2006)
- Koobface (2008)
- Currently most botnets have stealer capability
- Examples: TrickBot, Emotet, LokiBot, etc.

# CURRENT MARKET OF STEALERS

## Top Stealers

- Agent Tesla\*
- Formbook\*
- RedLine\*
- Raccoon\*
- Mars
- Vidar\*
- Oski
- Bloody
- AZORult
- Loki
- CopperStealer
- KPOT

\* Widely known stealers



# INFECTION METHODS



Phishing, torrents, pirated software,  
compromised websites, etc.



Leverage anti-evasion techniques



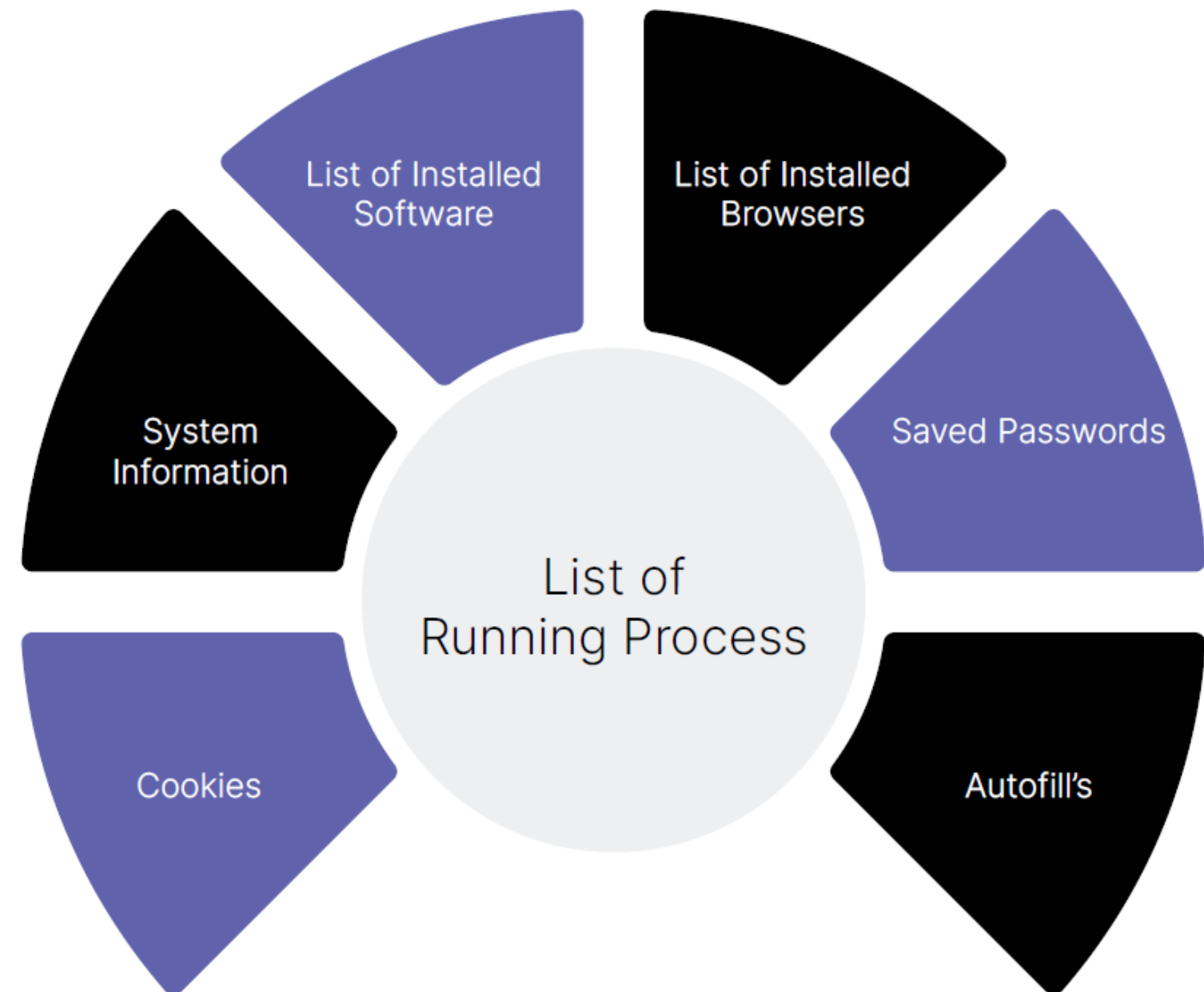
Rely on Wrappers/Packers/Cryptors



# CAPABILITY OF STEALERS



- Keylogging
- Hooking into browsers and other applications
- Utilizing Web Injection scripts





# Stealer Logs

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# TYPES OF LOGS GENERATED

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- Browser Cookies
- Browser Autofills
- Crypto Wallets
- Steam/Discord Tokens
- Login Details
- Payment Details





# EXAMPLE OF STEALER LOGS

```

Autofills
Cookies
CreditCards
Discord
FileGrabber
Steam
Telegram
Wallets
DomainDetects.txt
ImportantAutofills.txt
InstalledBrowsers.txt
InstalledSoftware.txt
Passwords.txt
Screenshot.jpg
URL: https://accounts.google.com/signin/v2/challenge/pwd
Username: [REDACTED]
Password: [REDACTED]
Application: Google_[Chrome]_Default
=====
URL: android:
tify.music/
Username: [REDACTED]
Password: [REDACTED]
Application: Google_[Chrome]_Default
=====
File: Tokens.txt

MTY [REDACTED] ZfAc

address-ui-widgets-enterAddressFullName: [REDACTED]
address-ui-widgets-streetName: [REDACTED]
address-ui-widgets-buildingNumber: [REDACTED]
address-ui-widgets-neighborhood: [REDACTED]
address-ui-widgets-enterAddressCity: [REDACTED]
email-or-phone: [REDACTED]@gmail.com
LoginForm[email]: [REDACTED]@gmail.com
firstName: [REDACTED]
emailaddress: [REDACTED]@gmail.com

Autofills
  Google_[Chrome]_Default.txt
  Microsoft_[Edge]_Default.txt
  Opera GX_Unknown.txt
Cookies
  Google_[Chrome]_Default Extension.txt
  Google_[Chrome]_Profile 1.txt
  Microsoft_[Edge]_Default Network.txt
  Opera GX_Unknown Network.txt
CreditCards
  Google_[Chrome]_Default.txt
Discord
  Tokens.txt
FileGrabber
  da.txt
Steam
  DialogConfig.vdf
  DialogConfigOverlay_1920x1080.vdf
  config.vdf
  libraryfolders.vdf
  loginusers.vdf
Telegram
  DB50A020D36CB65Cs
  Profile_1
  key_datas
  prefix
  settingss
  shortcuts-custom.json
  shortcuts-default.json
  usertag
Wallets
  Exodus
  exodus.conf.json
  market-history-cache.json
  window-state.json
  
```




# Underground Market Analysis

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# STEALERS LANDSCAPE





REDGlade  
Local

Joined: Feb 13, 2020  
Messages: 102  
Reaction score: 28  
Points: 372

Feb 19, 2020


WHEN PURCHASING THROUGH THE PM OF THE FORUM OR THE GUARANTOR OF THE FORUM 20% DISCOUNT FOR ALL TYPES OF SERVICES

Write only and only here <https://t.me/NEWREDLINE> and require confirmation through the PM of the forum

I would like to present you a stealer designed for convenient work with logs. Collects the most requested information for work in all areas. The program was written taking into account all the wishes of people professionally involved in the field of carding.

Build features:

- 1) Collects from browsers:
  - a) Login and passwords
  - b) Cookies
  - c) Autofill fields
  - d) Credit cards
- 2) Supported browsers:
  - a) All browsers based on Chromium ( Even the latest Chrome version )
  - b) All browsers based on Gecko (Mozilla, etc.)
- 3) Collecting data from FTP clients, IM clients
- 4) Customizable grabber file according to the criteria Path, Extension, Search in subfolders (can be configured for the desired cold wallets, steam, etc.)
- 5) Sample by country. Configuring a black list of countries where the build will not work
- 6) Configuring anti-duplicate logs in the panel
- 7) Collects information about the victim's system: IP



raccoonstealer  
RAID array

User

Sign up: 01.04.2019  
Messages: 75  
Reaction: 29


20.05.2019

**Raccoon Stealer. We steal, You deal!**

We started in April 2019 on exploit, wwh, xss, etc.  
Over the past time, we have received a lot of good reviews and constantly try to keep the quality of our service at the level.

**Software**

- \* Native code. Our build is not a fork of products already existing on the market.
- \* Stealer is written in C/C++.
- \* Our build will give you a different tap at each spill, because Raccoon is noticed by units of antiviruses in the conditions of a dynamic test.
- \* Raccoon collects: passwords, cookies and autofill from all popular browsers (including FireFox x64), CC data, system information
- \* Almost all existing cryptocurrency desktop wallets, including the Brave browser wallet and the Metamask extension wallet.
- \* Built-in file downloader.
- \* Work on both 32 and 64-bit systems without dependencies on .NET.
- \* Output file - Native x86 executable is easy to crypto.
- \* Private key, gate address and all other lowercase values are strongly encrypted.
- \* Most of the collected data the stiller stores in RAM, not on disk.
- \* File grabber.
- \* Dropper for one or more files with the ability to filter by requests contained in passwords and cookies.
- \* No need to create a new build when changing the gate! The entire transfer occurs invisibly from the user.
- \* Configuration changes occur on the fly. No rebuilding of the build.
- \* Each build has a unique signature. A person who drained the build on VT is easily calculated and banned in the service without a refund.



blackteam007  
(L1) cache

Пользователь

Регистрация: 14.04.2020  
Сообщения: 921  
Реакции: 159  
Гарант сделки: 1  
Депозит: 0.0001 \$

08.04.2021

✓ Stealer "BlackGuard" ✓  
Scantime/Runtime - <https://checkzilla.io/scan/d1f23cc6-72a7-4002-8d9f-0450f9826eb7>

☀ Функционал:

- 1) Сбор Passwords
- 2) Cookies
- 3) Autofill
- 4) History
- 5) Wallet:
  - 5.1) AtomicWallet
  - 5.2) BitcoinCore
  - 5.3) DashCore
  - 5.4) Electrum
  - 5.5) Ethereum
  - 5.6) Exodus
  - 5.7) LitecoinCore
  - 5.8) Monero
  - 5.9) Jaxx
  - 5.10) Zcash

20-07-2021, 03:02

Jester Stealer  
Member

Join Date: Jul 2021

Join Date: Jul 2021  
Messages: 102  
Reaction score: 28  
Points: 372

МЫ КОМАНДА ПРОГРАММИСТОВ ПИШУЩИХ ПРОГРАММНОЕ ОБЕСПЕЧЕНИЕ ДЛЯ ЛЮБЫХ ЦЕЛЕЙ НАШИХ КЛИЕНТОВ И ПО ДОСТУПНЫМ ЦЕНАМ

НА ДАННЫЙ У НАС В ПРОДАЖЕ ИМЕЮТСЯ:  
BOTNET, STEALER, CLIPPER, MINER


РАЗРАБАТЫВАЕМ ВАШЕ ПРОГРАММНОЕ ОБЕСПЕЧЕНИЕ УДОБНОСТИ ИЛИ ВАШЕ ДОПОЛНИТЕЛЬНОЕ ПОДРОБНОСТИ РАБОТЫ НАШИХ ПРОГРАММ

СВЯЗАТЬСЯ С НАМИ

ПОМОЩЬ ПРОДАЖИ ГОТОВЫХ РЕШЕНИЙ, МЫ МОЖЕМ РАЗРАБОТАТЬ ДЛЯ ВАС ПРОЕКТ ЛЮБОЙ СЛОЖНОСТИ, УЧЕМ ВСЕ ВАШИ ПОЖЕЛАНИЯ, НО НЕ БУДЕМ ЗАТЯГИВАТЬ СРОКИ И ЗАВЫШАТЬ ЦЕНУ. НАША КОМАНДА УЖЕ СЕЙЧАС АКТИВНО РАЗВИВАЕТСЯ И КОНКУРИРУЕТ С ДРУГИМИ ПРОДАВЦАМИ ГОТОВЫХ РЕШЕНИЙ

ДОПРЯЖЕ КЛИЕНТЫ, УВАЖИТЕЛЬНАЯ ПРОСЬБА "ОТВЕРЖИТЕ КОНТАКТЫ" ПЕРЕД НАЧАЛОМ ДИАЛОГА. НЕ АВАРИЙНО ПОДПИСЫВАЙТЕСЬ НАМ НА ФОРУМЕ.



**Jester** 

**[EN]: Universal Exploit Builder**

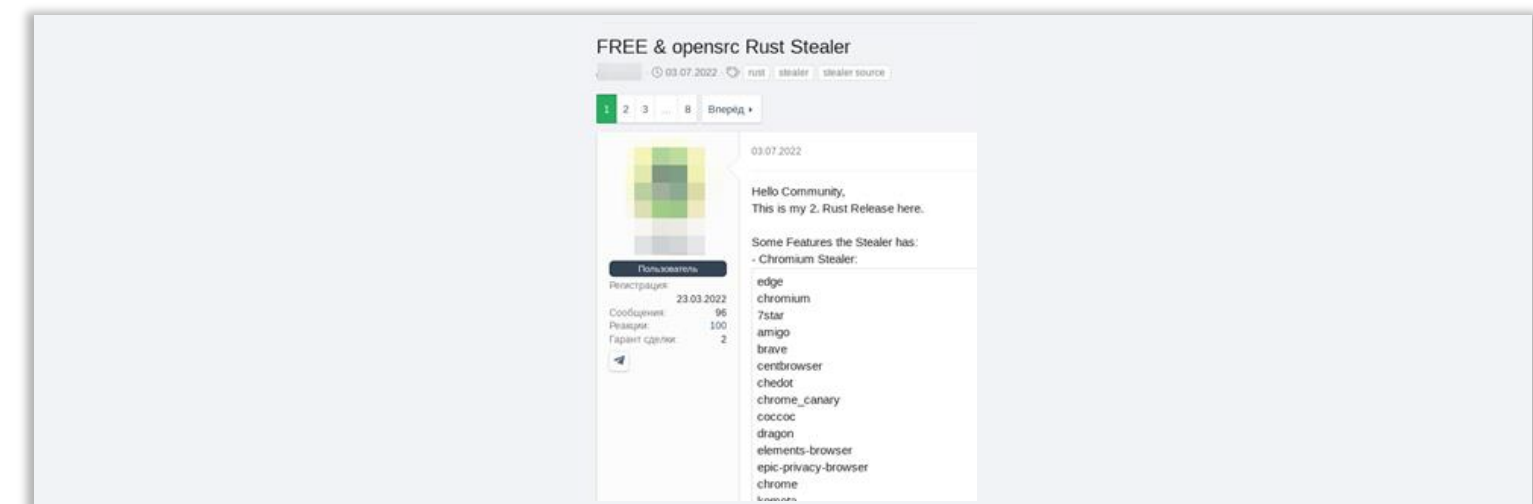
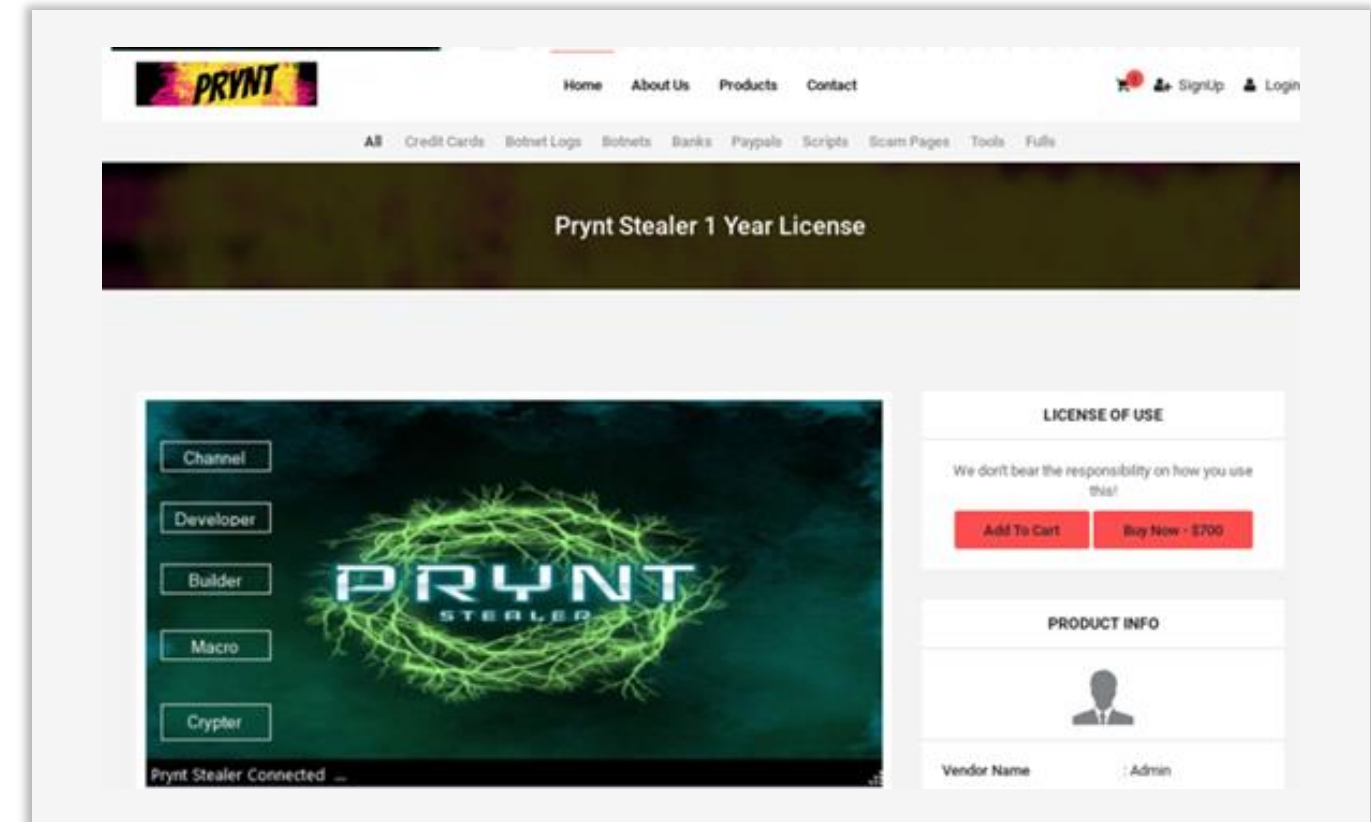
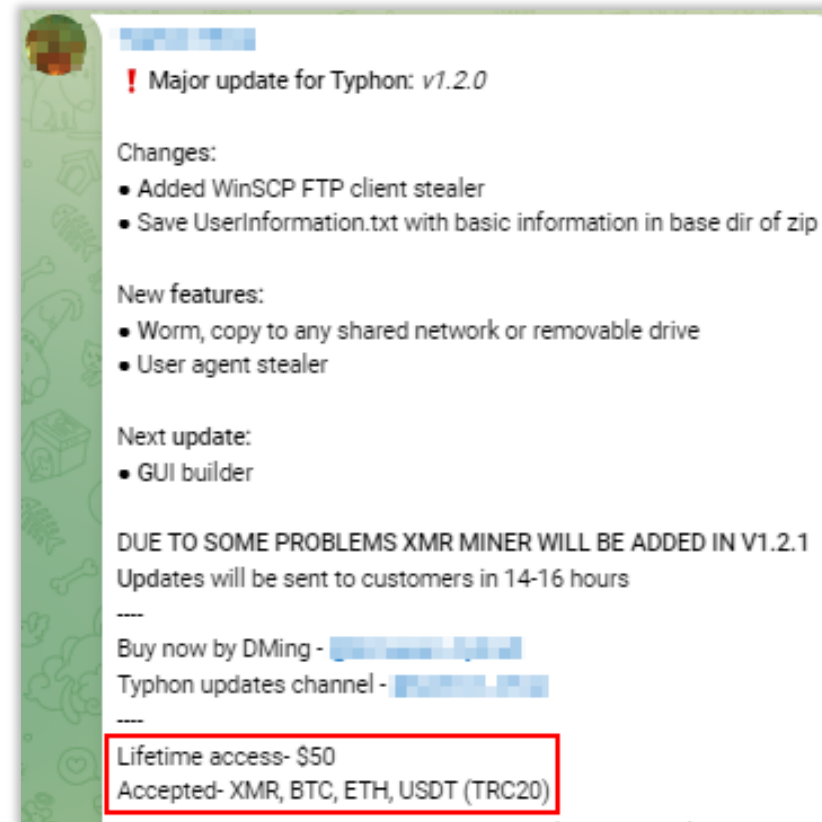
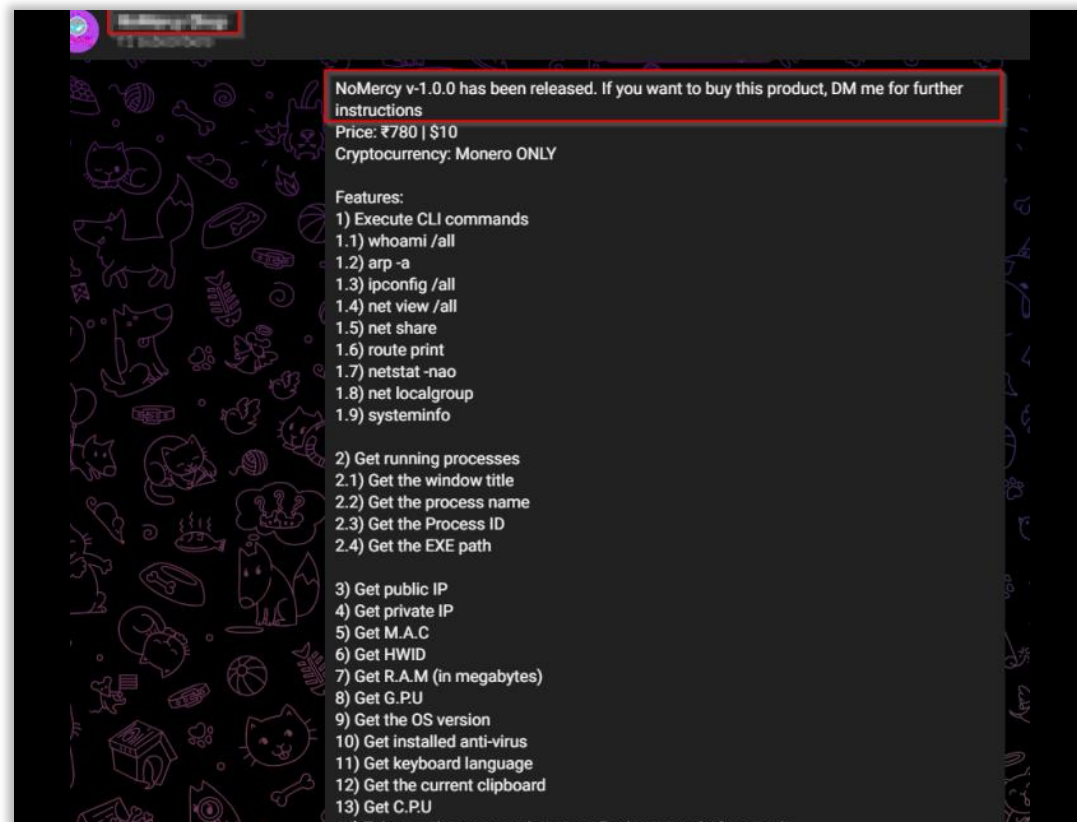
We are opening pre-sales of the builder. The builder will help you to hide any one without any problems .exe file in such extensions as: "jar", "bat", "ps1", "txt", "png", "mp3", "mp4", "pdf", "doc", "xls", "ppt" and others at your request.

When you run an infected file, the virus will open secretly, as well as the file itself with which you are gluing.

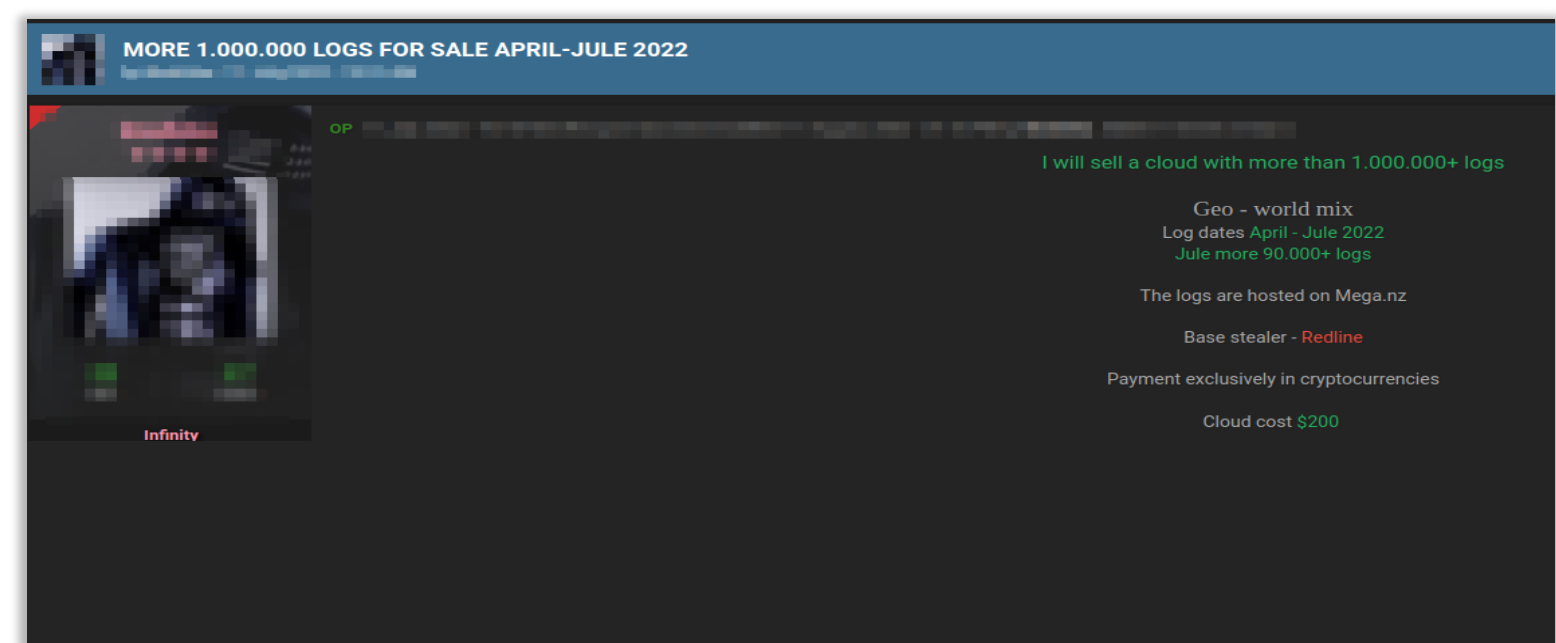
Also, with the help of a builder, you can glue ordinary ones .exe + .exe files.

- REDLINE STEALER Pro
- Stealer functionality:
  - Collects from browsers:
    - Login and passwords
    - Cookies
    - Autocomplete fields
    - Credit cards
  - Supported browsers:
    - All browsers based on Chromium (even latest version of Chrome)
    - All Gecko-based browsers (Mozilla, etc.)
  - Data collection from FTP clients, IM clients
  - File-grabber customizable by Path, Extension, Search-in-subfolders (can be configured for the necessary cold wallets, Steam, etc.)
  - Settings by country. Setting up a blacklist of countries where the build will not work
  - Settings for anti-duplicate logs in the panel
  - Collects information about the victim's system: IP, country, city, current username, HWID, keyboard layout, screenshot, screen resolution, operating system, UAC Settings, is the current build running with administrator privileges, User-Agent, information about PC hardware (video cards, processors) and the steal of crypto
- Info:
  - <https://t.me/REDLINESTEALERPro> - Official page
  - [@StortBotnetProstealer](#) - Buy Redline
- Contacts:
  - [@StortBotnetProstealer](#) - Support and Buy
- Telegram
  - REDLINE STEALER Pro
  - Buy Redline Stealer Pro

# NEW/PRIVATE STEALERS ON THE MARKET







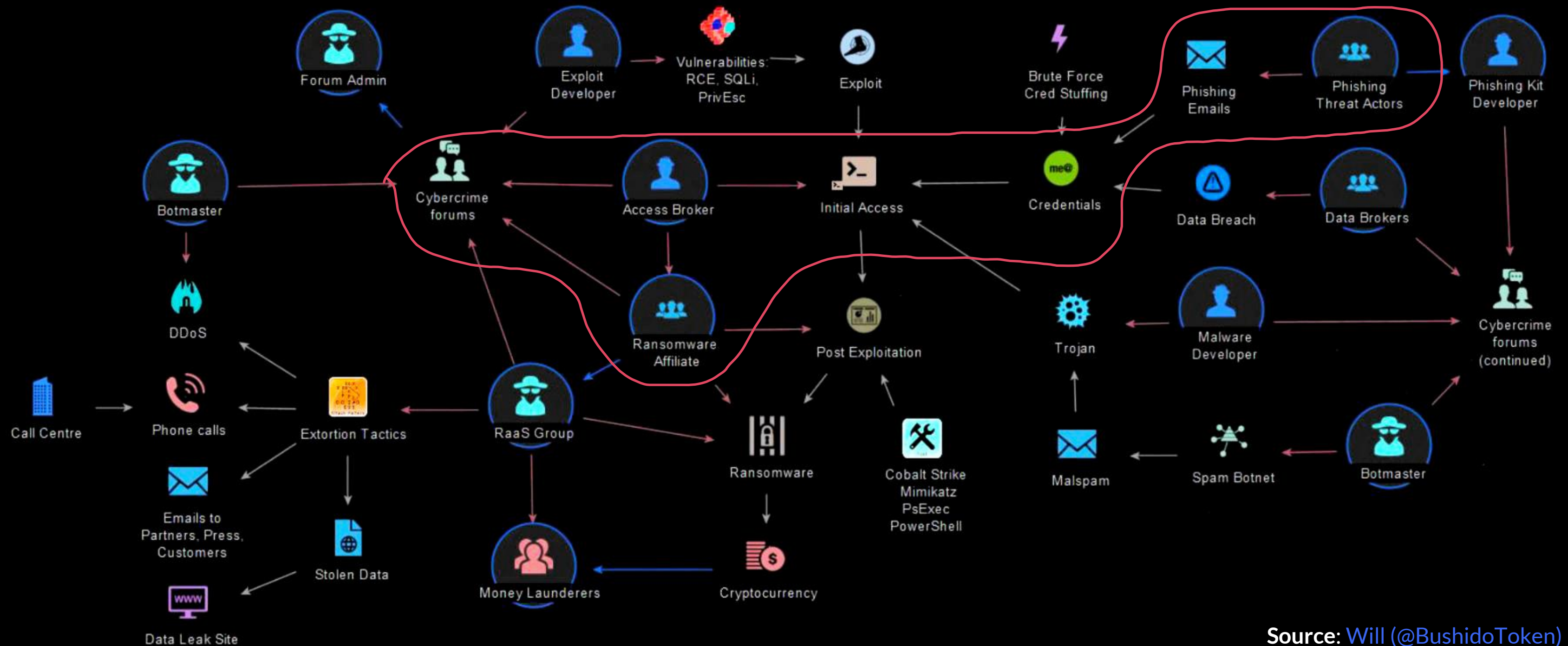




# Market Beyond Stealer Logs

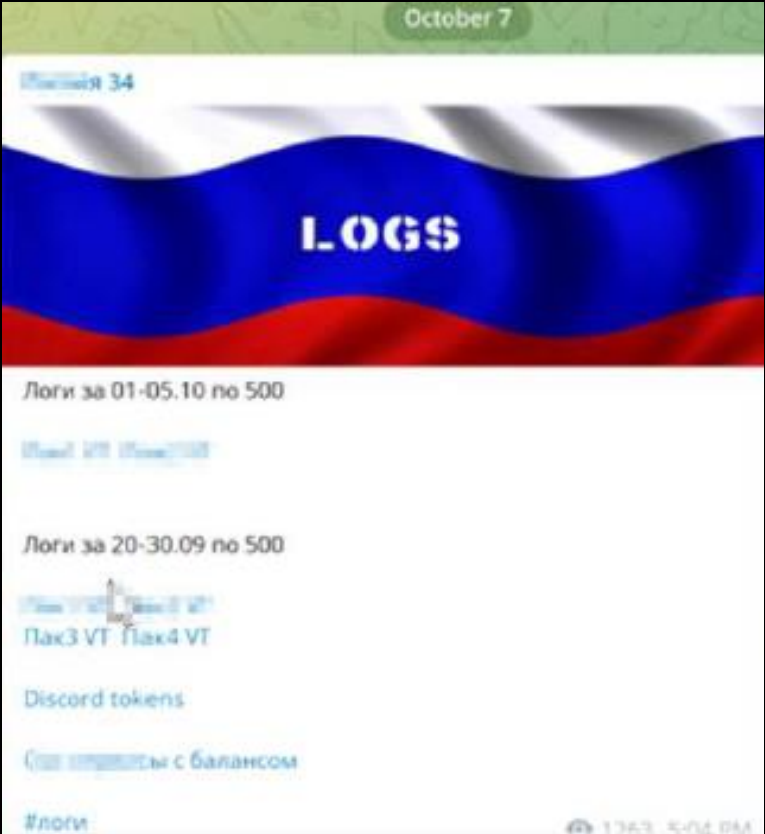
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# HOW ARE STEALER LOGS USED?



Source: Will (@BushidoToken)

# HOW ARE STEALER LOGS USED? (Contd.)



Threat Actor Group	Stealer Used
APT 28	CredoMap
APT Group (TA505)	Raccoon
Operation Epic Manchego, FIN 11	AZORult
Pinchy Spider, FIN 11	Vidar
APT 29	CryptBot
Conti	Raccoon, RedLine, CryptBot
Hive	RedLine
Lapsus\$	RedLine



# IMPACT

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# Protection for consumers/business

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# PROTECTION FOR ORGS

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- Block URLs that could be used to spread the malware, e.g., Torrent/Warez.
- Monitor any unusual endpoint behavior and network beacons to block data exfiltration by malware.
- Use the IOCs which are present on public platforms to monitor and block malware infection.
- Educate employees in terms of protecting themselves from threats like phishing's/untrusted URLs.





# PROTECTION FOR USERS



- Avoid downloading pirated software from warez/torrent websites.
- The “Hack Tool” present on sites such as YouTube, torrent sites, etc., mainly contain such malware.
- Use strong passwords and enforce multi-factor authentication wherever possible.
- Refrain from opening untrusted links and email attachments without first verifying their authenticity.





# Conclusion

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# WHAT WE DISCUSSED SO FAR?



- Stealers and their capabilities
- Structure of stealer logs
- Underground landscape for stealers
- Market of stealer logs
- Usage of stealer logs by TAs
- Protection for users/orgs



# RESOURCES

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1. [Cyble - Analysis of Stealer Malware Family](#)
2. [Cyble – Stealer Blogs](#)
3. [US CISA Alert \(AA22-216A\) – 2021 Top Malware Strains](#)
4. [Microsoft – DEV-0537 \(LAPSUS\\$\) Blog](#)
5. [Kaspersky – Common TTPs of the modern Ransomware Report](#)





# THANK YOU

*Any questions?*

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