

Info-stealer: Most bang for the buck malware

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Who Am I?



Jiho Kim

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- Junior Threat Intelligence Researcher
- BLKSMTH, S2W Talon
- Working hard always

FIRSTCON 2023: First presentation of my life ever!



Who are we & What we do?

We are S2W TALON!



Abstract in 5W1H

WHO

A type of malware that steals all sensitive information, including credentials, after infiltrating a victimized system.



01. MaaS (Malware-as-a-Service)

A type that operates on the deep & dark web and sells builder or license that create stealer malware executables and panels for managing infection logs

02. Open-source

A type releasing the source code of the stealer created for free

03. Own

A type that builds and use own stealer without selling or disclosing it



* Statistics by S2W's deep & dark web search engine, Xarvis



WHERE

They are most active on dark web forums and use their own Telegram channels for communication and customer care.

Dark web forums



Telegram channels





They steal the most valuable information, and that information changes over time.



WHY

Not all they have huge TTPs, but they are often used by attackers because the value of the items stolen is hundreds of times greater than the relatively small cost.



HOW





There are **more than 100 operators** in dark web forums and telegram channels, with over 40 of them being newly discovered on the dark web.

In addition to old favorites like Redline, Vidar, and Raccoon, newer stealers like Aurora, Meta, and Titan are making their mark.



* Statistics by S2W's deep & dark web search engine, Xarvis (2020 ~ 2022)

Darkweb Forums: Sales for stealer

Stealer operators began to advertise on various dark web forums to sell stealers, and fierce competition ensued on forums like Breached, XSS, and Exploits.











* Statistics by S2W's deep & dark web search engine, Xarvis

Exfiltrated Data



* Statistics by S2W's deep & dark web search engine, Xarvis



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* Statistics by S2W's deep & dark web search engine, Xarvis

Darkweb Forums: Sales for stealer log

---- Autofills

- ---- CryptoTab Browser_[User Data]_Default.txt
- ----- Google_[Chrome]_Default.txt
- ----- Microsoft_[Edge]_Default.txt
- └── Opera GX_Unknown.txt
- ---- Cookies
- Google_[Chrome]_Default Extension.txt
- Google_[Chrome]_Default Network.txt
- L----- Opera GX_Unknown Network.txt
- ---- Discord

└── Tokens.txt

---- DomainDetects.txt

---- FTP

└── Credentials.txt

- ----- ImportantAutofills.txt
- ---- InstalledBrowsers.txt

----- InstalledSoftware.txt

----- Passwords.txt

----- ProcessList.txt

----- UserInformation.txt



Build ID: [Redacted] IP: [Redacted] FileLocation: C:\Windows\Microsoft.NET\Framework\v4.0.30319\vbc.exe UserName: [Username] Country: [Country] Zip Code: [Zip Code] Location: [Location] HWID: [HWID] Current Language: [Language] ScreenSize: {Width=1920, Height=1080} TimeZone: [Timezone] Operation System: Windows 10 Enterprise x64 UAC: AllowAll Process Elevation: False Log date: 11/20/2022 8:29:07 AM

Available KeyboardLayouts: [KeyboardLayouts#1] [KeyboardLayouts#2] [KeyboardLayouts#3]

••

Hardwares: Name: AMD Ryzen 5 2600 Six-Core Processor , 6 Cores Name: NVIDIA GeForce RTX 2060, 4293918720 bytes Name: Total of RAM, 16312 MB or 17104371712 bytes

Anti-Viruses: Windows Defender

Darkweb Forums: Sales for stealer log

In addition, since 2022, forum categories and markets have emerged that sell only logs

		Stealer Lo	gs ou can post Stealer logs.	BreachForums Leaks Economy where you read on	 Stealer Logs st aler logs. Mark this forum read 		Mark all as read Todiay's posts
the second secon	DMBOLIST ∲ FRESH A 3 - 08:43 PM			og Ren	noved Content sts and dead links live in darkness.		235 2,270 23 GB LOGS RAR 2023 23 minutes ago POSTS by 104-19 Weep
2 Chuchello Chuchrag Chrebolers DANKE	MES * THE REFER Combulied + FRESH ASF +				5 30 Next >		Mark this forum read
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	LOGS pre-order						
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Logs are being sold for as little as \$1 and as much as \$10 on the Russian Market where logs are commonly sold.



About **222 countries detected** by S2W, and the number of logs for sale is more than

12,426,205.

Total Amount of Logs **12,426,205**

Brazil	1,684,015
India	933,266
Indonesia	764,632
Germany	528,072
:	:
Thailand	311,246
France	290,625
Colombia	262,708
:	:
South Korea	104,087

Ecosystem of Stealer

The stealer ecosystem is becoming tighter and more organized.

People who specialize in each area of the offense are starting to team up and sell their services to the customer in the dark web forums and Telegram.

They make money through fees paid for using their services.





A group that makes stealer, licenses and builds it

Traffic Teams

A group that spreads stealer and other malware and monetizes logs



Infrastructure Team

A group that provides the panels, the hosting servers needed to run and distribute it, the tools to attack

Log Team

A group that sells only logs, which can be sold per tem, per country, or per stealer.







Stealer Operator

The operator group develops stealer, monetizes it as a service, and sells it on dark web forums.



Stealer Operator

LummaC Stealer

Post Started: 2022-01-31

Contact Method: Telegram

Role: Admin, Coder, Seller, Support, Advertisement





Aurora Stealer

Post Started: 2022-08-21 Contact Method: Telegram Role: **Admin, Coder, Seller, Support** Other Services: Install, Crypt, Traffic

Stealer Operator

Eternity Group

Started: 2022-02-02

Contact Method: Telegram

Role: Admin, Coder, Seller, Support, Moderator

Other Services: Install, Brute Force, Crypt, Traffic Work: 09:00 ~ 00:00

AGRAT Group (same as Eternity)

Started: 2022-02-09

Contact Method: Telegram

Role: Admin, Coder, Seller, Support, Moderator

Other Services: Install, Brute Force, Crypt, Traffic Work: 09:00 ~ 00:00



Traffic Team

A traffic team is a group whose primary purpose is to "distribute stealer" and "get Logs". They purchase stealer licenses sold within the forums or affiliate with stealer operators and provide builds to members of the team, called *Traffers*.



Traffic Team



Traffic Team

The operator group develops stealer, monetizes it as a service, and sells it on dark web forums.


Relation: Stealer Team – Traffic Team



Traffic teams identified in XSS, Lolz.guru, and Exploit

(2021-01-01 to 2022-12-31)

Relation: Stealer Team – Traffic Team

	Titan			
Strait of Traffic Team	CripsGang	War and Peace	WebCrew Logs Team	Xane Team
Darkweb Team	Universal Team	Invokere-lolz	Shark Team	
Sisky	Innovation Team	PPI Monster	SPACEUP Team	
eegraber-lolz	Lelouch Team	Shadow Team	AlPachino	Erbium
SWEETYLOGS	BetterTraffic	Ammesia Team	Oblivion Team NFT	Minion Team
GMC team	Kekonaut-lolz	SQL-lolz	EuroLogs	
Soldbum Team	LeksKB-lolz	Paracetamol Team	Party team	
31 Boulevard Team	Game Square team	Santares Team	ExTeam	Vidar
BOMBSPAM Team	Dark Dynasty	Hydra Family	Awesome Team	
SADAX Team	1377 Team	Krek3621	Xanax	ARIZONA Team
Qwiks Team	Heavn's Bliss Team	Vertigos de Team	•••	Shiba Traffer Team

Traffers identified in XSS, Lolz.guru, and Exploit

(2021-01-01 to 2022-12-31)

Relation: Stealer Team – Traffic Team



Number of Stealers \propto **Number of Traffers?**



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How do they distribute stealers?

Manual

The traffic team targets phishing pages and YouTube that are accessible to a large number of users to mass distribute the stealer.

Work manual from slide

Hello everyone, I'm glad that you came to see my manual, in which I put all my knowledge about traffic with all my heart. After reading it, I guarantee that everything will work out for you and you will have money

INTRODUCTION

What is the essence of the work?

We must spread the virus, which the victim will then launch. The virus can be disguised as a cheat for any game. Or you can disguise it as a program. Basically, everyone works on YouTube, uploading videos with a virus to them. Examples: Crack Adobe Photoshop, fortnite hack, bandicam crack

I think you get the point. But everyone pours such garbage, so turn on your imagination.

AMNESIA | Library

Hello! I will tell you how to completely secure yourself on the network, and physically protect your data, both from a PC and from a phone.Safety in life and network.

You can fully set up your PC, but at the same time sit in your telegram from a regular phone, withdraw money to your card, distribute any personal information about yourself.

For each thread you can catch on and stretch the whole ball, every little thing is important. I won't teach you how to live, tell you what to do, what not to do, tell how safe the scheme is at the output, you yourself will understand everything in the end, and collect your config. Entry

Tools used by Traffic Team

- Proxy
 - Proxy list required for communication between C&C server and infected PCs.
 - Ex) Space Proxy, Luxury Proxy, Proxy Store, etc..
- YouTube Upload Tools
 - Automated uploading of videos to a specific YouTube account to perform maliciou s actions via browser cookie values and proxy values in captured logs.
 - Ex) YouTube365, Proxy 911, @YT_TurboT
- SEO
 - an indicator depending on what we take as an example. In terms of YouTube, this is a collection of tags, titles, descriptions, and more.
 - Ex) @CheckSEOBot, VidiQ

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 - Ex) YouTube365, Proxy 911, @YT_TurboT
- SEO (Search Engine Optimization)
 - In terms of YouTube, this is a collection of tags, titles, descriptions, and more that make video to be the top of the search result.
 - Ex) @CheckSEOBot, VidiQ





Show how high a trending index the video has —



Новый профиль Массовый импорт		Ф новый от	ГПЕЧАТОК	+ создать	×
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		Статус:			
Теги 👻					
		Платформа:	🧾 Windows		
📑 WINDOWS 🇉 MACOS 🔬 LINUX				122.0	
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		WebRTC:	Подменять		
		Canvas:	Реальный		
		WebGL:	Реальный		
с L				-	
Вставьте куки или перетащите файл drag and drop		Client Rects:	Реальный		
		Часовой пояс:	Авто		
		Язык:	Авто		
Useragent Ø Mozilla/5.0 (Windows NT 10.0; Win64; x4	64) AppleWebKit/537.36 (Геолокация:	Авто		
			8 ядер		
WebRTC выкл реальный подменять вручную		Память:	8 ГБ		
Canvas выкл реальный шум		Экран:	Реальный		
WebGL выкл реальный шум		Аудио:	Реальный		

Set the browser fingerprints & proxy & session data



Valorant Hack May 10, 2023 Valorant Hack	@Tsenis_alice.exe 1.2 MB С Мета Билд успешно создан и закирптован Alice
Download link <u> CLICK</u> Password: 1234	Image: Station processing and the station procesing and the station processing and th
 IF YOU HAVE PROBLEMS DOWNLOADING / INSTALLING! If you can't download / install the archive, you need to: 1. Disable / remove antivirus (files are completely clean) 2. Disable Windows Smart Screen, as well as update the Visual C++ package 	2023-FILES-Soft DOWNLOAD (20.09MB) C C T + DOWNLOAD (20.09MB) Image: C C T + Image: C C T + Image: C C T + Image: C
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Traffic Team: Threat cases



Threat cases: Lumma Stealer targeted Korean YouTuber



Threat cases: Lumma Stealer targeted Korean YouTuber



Relationship with Stealer Operating Group



Relationship with Crypt



Relationship with Tools



Case related Stealer Ecosystem

The string "@im_HiLLi" was present in the Build ID, which can be arbitrarily specified by the attacker when creating the stealer, and the same string was found in another Meta stealer and Aurora stealer.



Case related Stealer Ecosystem

The string "ALL" and the same ICON hash were found in a common set of samples identified them as the KZ traffic team by the Telegram ID used in the BuildID field.



Identify value used in Aurora stealer



Best Traffer in KZ Team

Case related Stealer Ecosystem

One of KZ Team's traffickers, user "Ventenda," uploaded log files to a Telegram channel that specializes in sharing only stealer logs.



KZ Team's Traaffer: @Ventenda

Some files in a shared stealer log



Takeaways

Lessons Learned: What to focus on to track down stealer groups



Lessons Learned: What to focus on to track down stealer groups



Thanks, Any Questions?