

Cyber Threat Intelligence: Dark Web



TABLE OF CONTENTS

Introduction	3
Threat Intelligence on the Dark Web	3
The Underground Economy of Cybercrime	4
Products, Services and Actor Roles	4
Security strategies for preventing data compromise	11
Identify and classify sensitive data	11
Access control lists	11
Data Encryption	12
Best Practices for Systems Hardening	13
Cyber Security Awareness	13
Definitions	14



Analist Arda Büyükkaya

Cyber Threat Intelligence: Dark Web Report

Introduction

Cyber Threat Intelligence (CTI), focuses on data collection and information analysis so that we can gain a better understanding of the threats facing an organization. This helps us protect its assets. The objective of any CTI analyst is to produce and deliver relevant, accurate, and timely curated information, that is, intelligence so that the recipient organization can learn how to protect itself from a potential threat.

Threat Intelligence on the Dark Web

The amount of information on Underground forums and marketplaces is enormous, filtering this raw data and creating actionable items to protect Governments or Companies are the key achievement for us. Cybercriminals using Dark Web (Onion routing) for Privacy purposes, Social Networking, Stack Exchange and as a marketplace.



Figure 1 The intelligence cycle

"Intelligence is a corporate capability to forecast change in time to do something about it. The capability involves foresight and insight, and is intended to identify impending change, which may be positive, representing opportunity, or negative, representing threat."



The Underground Economy of Cybercrime

The cybercrime underground maintains its own economy by easy to use products and services. Financial transactions have been increased with accessibility of anonymous cryptocurrencies such as Bitcoin, which is commonly used by malicious actors amongst themselves as well as for accepting payments from victims (e.g., ransomware).

Ransomware attacks are on the rise, but the question is, how could a group of cyber criminals compromise thousands of computers from various companies? Short answer is; underground markets being used by these Ransomware Groups to buy remote access on multiple victims, these remote access sellers are called Initial Access Brokers.

According to Small Business Innovation Research (SBIR) "Cybercrime costs the global economy about \$445 billion every year, with the damage to business from theft of intellectual property exceeding the \$160 billion loss to individuals. Cybercrime is becoming a growing and significant concern for small businesses."

Products, Services and Actor Roles

The services offered within the cybercrime economy utilizes a leasing structure, in which access to a product is promised at a set rate for a fixed period of time. The sellers benefit from a guaranteed source of recurrent revenue throughout an extended period of time, and buyers benefit from the continued availability and performance of malicious tools

Products can be broken down into two main categories: information and resources

Stolen personally identifiable information (PII): Including everything from mass email lists used by spammers to full identity theft packages to commit financial fraud

Exfiltrated organizational information: Including intellectual capital / property, non-public internal data, and internal operational details



TLP:WHITE

Harvested authentication credentials: Stolen username and password combinations continue to present a significant risk these days, especially when those credentials are re-used across multiple sites

USA phones database - 183,000,000+ lines	7 replies	Classymax
By NetSec, May 1	1131 views	22 hours ago
USA FULLZ SSN+DOB 4kk	1 reply	Classymax
By kalipso_0, July 12	394 views	22 hours ago
Forex Germany 106K Records	0 replies	cypherdecoder
By cypherdecoder, yesterday at 10:34 AM	85 views	Yesterday at 10:34 AM
Germany ebay orders and Belgium Linkedin DATABASE By MasterBolo, July 2	6 replies 715 views	MasterBolo July 13
Sweden Gambling List Database and Ireland 2022 FULL INFO By MasterBolo, June 29	4 replies M	MasterBolo July 13
bestblackhatforum.com 267k üser database	6 replies gero	<mark>gero</mark>
By gero, Monday at 04:36 PM	324 views	Tuesday at 06:34 PM
Giveaway - US Fullz By secure, Tuesday at 12:36 AM	3 replies S	secure Tuesday at 05:54 PM
Валидные админки с правами администратора	2 replies locat	locative
By localive, Sunday at 10:00 PM	288 views	Tuesday at 03:32 PM
LovePlanet.ru search for db	22 replies	colo8585
By John Malkovich, April 19, 2021	2057 views	Tuesday at 03:23 PM
ETFinance.eu 44K 2021	0 replies	cypherdecoder
By cypherdecoder, Tuesday at 1220 PM	123 views	Tuesday at 12:20 PM
Forex FxTraders 693k Records 2021	0 replies	cypherdecoder
By opherdecoder, Tuesday at 12:16 PM	114 views	Tuesday at 12:16 PM

Pilfered financial / Payment data: Unauthorized withdrawals from accounts or charges against credit lines continue to plague account holders

By easydeals, At	g CVV / Dumps - bulk/shop vendor - 60k buyers base
easydeals	Posted August 14, 2021 (edited)
•	Oldest shop in the market looking for suppliers.
	Over 60 000 buyers base, 10 000 daily active buyers.
	Network of shops connected to our platform.
Seller	1. Highest selling prices to secure good quality for our buyers.
• 2	2. High suppliers share - between 60% and 80%.
14 posts	3. Fast payout: max 24 hours from payout request for minimum 500\$ payout.
08/13/21 (ID: 119025)	4. Automatic seller panel with all the information to control sales and see refunds.
Activity	5. 24 hours No Refund for buyers, when new bases are posted and valid rate is over 70%.
другое / other	6. Pre-Order system to increase top bins prices.
0.060499 B	7. Also buying in BULK with forum escrow.
	Shop domains: easydeals.ec or easydeals.gs.
	PM for more details and jabber contact. Contact also directly in shop on ticket.
	Thank you!
	Figure 2 Selling CVV data



DISCLAIMER : This document and its contents shall be deemed as proprietary and privileged information of INFINITUM IT and shall be subjected to articles and provisions that have been stipulated in the General Data Protection Regulation and Personal Data Protection Law. It shall be noted that INFINITUM IT provides this information "as is" according to its findings, without providing any legally applicable warranty regarding completeness or accuracy of the contents. Therefore, neither this report nor any of its contents can be used as admissible proof before legal authorities

infinitum IT

Resource products include elements such as:

Access to feature-rich malware:

Malware across varying capabilities (e.g., information stealers, remote administration tools – RATs, ransomware, purpose built utilities) that demonstrate consistent results and avoid source code leakage can generate significant revenue for associated authors and distributors

Crux	Posted April 2, 2021 (edited)
kilobyte	
	MemPOS scans for dumps (T1/T2) and CVVs stored in memory, files, keyboard, clipboard or network packets in several different known formats by utilizing algorithms and a series of handpicked Regex.
	All traffic is encrypted with SSL and transported via the Tor network to your own hidden service (.onion address), which we can assist in setting up for you in less than 2 minutes.
	It's a guarantee that MemPOS performs better than any other existing POS malware. Best of all, it is extremely easy to setup and getting started with.
¥ 🖃	
	Demonstration:
Seller	https://www.youtube.com/watch?v=ZSSLVGy3Tlo
05	
32 posts	MemPOS catches dumps and CVVs by means of:
3/23/21 (ID: 115295)	* Continuously scanning memory space of x86 and x64 bits processes
Activity	* Continuously scanning relevant files on all connected drives and caching those for less redundancy
ирусология / malware	* Monitoring network packets from active interfaces
	* Monitoring clipboard for data transmissions
	* Monitoring keyboard interfaces, which is especially effective against certain POS software utilizing this method
	Bot features:
	* Low profile: Utilizes process affinity for minimal CPU load. Typically using a single core only and averages about < 1% of CPU load.
	* Hidden+Normal startup methods
	* Process persistence (automatically re-spawn process if killed)
	* Utilizing hashing of dumps/CVVs and scanned memory blocks to avoid redundancy
	* Reports to panel every minute
	Panel features:
	* Bot info shown is ID, HWID, IP/LAN, PC/User, OS, Install date, Last seen, Dumps/Tracks, CVVs, Relapse, CPU usage
	* Guest account for allowing trusted partners to view statistics and masking sensitive details (dumps/CVVs)
	* Export dumps or CVVs with customizable details like selecting columns and delimiters
	* Relapse level - View ratio of returning customers in % for each POS system
	* Marking dumps or CVVs as sold
	* Daily statistics chart
	* Download and execute
	* Clear tracks/cvvs
	E Delata hat





Figure 4 Advertisement of MemPOS Malware



TLP:WHITE

08/06/19 (II

вирусология



Figure 5 Source code leakage of Dark Rat

Ransomware actors wanted to get Initial Access on corporate networks without being detected by EDR/AVs, oftentimes 0-day exploits may be so expensive to achieve that so they can use private malware loaders for evading the detection.

Solmyr	Posted July 28, 2021
gigabyte ••••	Welcome to my sales thread.
	Product: <u>XLL Excel Dropper</u>
5	Type: One click
Seller © 12 167 posts Joined 5/19 (ID: 94865) Activity ология / malware Deposit 0.2025 p	 XLL dropper is a great alternative to Macros and 1-day silent exploits. Upon opening, the XLL file will display a popup. It only takes one click on the popup to execute your file. (see video below!) Features: Full Coverage This XLL dropper works on patched and unpatched office. Supported office versions: 2003, 2007, 2010, 2013, 2016, 2019, office365 Supported Windows versions: XP, Vista, 7, 8, 8.1, 10, 11 Architectures: 32 and 64 bits, builder can generate files for both architectures. No Protected View It is always only one click. No need to "Enable Content". Regular updates free of charge We regularly check detection status and release updates when they're needed. Professional Support If you need assistance - we are ready to help. Chat, TeamViewer, Anydesk Custom content You can insert content of your choice to the document. Attachable on Gmail You can attach the XLL to email and send it. Bypass Windows Defender This XLL file bypasses Windows Defender Real-time protection and Cloud-protection. Bypass Smart Screen If you struggle with Smart Screen blocking your files, then this XLL dropper can be your solution.
	More information about the features: https://warzone.ws/xll.html

Figure 6 Malware Dropper with Excel XLL



DISCLAIMER : This document and its contents shall be deemed as proprietary and privileged information of INFINITUM IT and shall be subjected to articles and provisions that have been stipulated in the General Data Protection Regulation and Personal Data Protection Law. It shall be noted that INFINITUM IT provides this information "as is" according to its findings, without providing any legally applicable warranty regarding completeness or accuracy of the contents. Therefore, neither this report nor any of its contents can be used as admissible proof before legal authorities

7

Purchase of system or software exploits: While many white hats elect to support bug bounty initiatives by vendors, there remains a lucrative underground market for reliable, unpatched exploits



Alongside with Odays, oftentimes Threat Actors share their experience on widely abused vulnerabilities, this information is so valuable for the Ransomware groups that could help them for mass infection.



Figure 7 VMware Workspace - Remote Code Execution Exploit



Malicious actor training: Guidebooks or tutorials on effective tool usage or specific Tactics, Techniques, and Procedures (TTPs)

Hide your CobaltStrike like a PRO! & Bypass Kaspersky End Point Security AV/EDR (PART 2)



~/ Bypass Kaspersky AV / EDR 04.06.2022		
Spoiler: Bypass Kaspersky End Point Security		
Well, most AV / EDR companies the important part for them to disable powershell 1 the power of any shell in windows and today i will share a public "Bypass powershell" script which will work with you in	n 4-5 steps.	
We all hear about Invoke-Image which hide the malicious code (powershell.ps1) inside image (xssjpg), but now we will work on duplicated the encryption of the image. i will not explain more about, the import the Invoke-PSImage script in your windows lab.	most important to	
1) open powershell and import Invoke-PSImage.ps1 into your powershell (make sure AV and Windows Defender is turn off while importing the shellcode):		
Code:	Copy to clipboard	
Import-Module .\Invoke-PSImage.pe1		
2) generate your malicious image		
Code:	Copy to clipboard	
Invoke-PSImage -Script .\payload.ps1 -Out .\rlz.png -Image .\xss.jpg -Web		
🖉 I deninistrates Windows Described II — 🗍 🗙		
<pre>21 Administrative Windows Yoveball</pre>	~	
Figure 9 Usage of Invoke-PSImage		

Services include the following:

Distributed denial of service (DDoS): These are botnet powered attacks that affect the availability of targeted servers and capabilities.

Exploit kits (EKs): As part of the service offering, exploit kits are typically leased with a monthly rate for access to the exploit toolkit, allowing for customized end payloads.



Infrastructure rental: These include hosting services for attack platforms, malware updates, configuration, command and control (C2), and other attack lifecycle functions.



Money laundering: This is known as the transfer ("Money Muling") of illegally obtained funds through accounts and mechanisms in money haven countries remains a crucial service.

Initial access brokers: Malicious actors that provide access to secure networks for a fee. They are often hackers but may also gain access to networks using social engineering. Their motivation is not to carry out cyberattacks but rather to sell the access to another party.

jiljer 12072		MAR	KET CONTAC	I y ISP	PROFILE LOGOUT Search	
Add a	Add all to cart					
	Price	IP	Country	ISP		
	5\$	99.85.x.x	💻 US	ATT-INTERNET4 - AT&T Services, Inc.	Add to cart	
	5\$	99.36.x.x	💻 US	ATT-INTERNET4 - AT&T Services, Inc.	Add to cart	
	5\$	99.247.x.x	📔 CA	ROGERS-CABLE - Rogers Cable Communications Inc.	Add to cart	
	5\$	98.53.X.X	🔳 US	COMCAST-7922 - Comcast Cable Communications, LLC	Add to cart	

Figure 10 Wanna buy RDP is the marketplace for the Initial Access, average price for accessing compromised device in US or Canada will cost 5\$



Security strategies for preventing data compromise

Identify and classify sensitive data

Without understanding the sensitivity of data, it is hard to properly secure it. Because of that, companies use Data Classification. Data classification is of great importance for organizations. Purpose refers to the process of analyzing data (both structured and unstructured) and then organizing that data into defined categories based on its content, file type, and other metadata attributes. In this way, a security system that is divided into parts and easier to control is created.

Access control lists

Access control list (ACL) is another form of breach prevention. An access control list (ACL) is a list of rules that specifies which users or systems are granted or denied access to a particular object or system resource.

Each ACL has one or more access control entries (ACEs) that consist of the name of a user or user group. It can also be a role name, such as user, programmer, or tester. Typically, the system administrator or object owner creates the access control list for an object.

Types of access control lists can be divided into two basic items:

File system ACL: Manages access to files and directories. They give operating systems instructions that determine user access permissions and privileges for the system after the system has been accessed.

Networking ACL: Manages network access by providing instructions to network switches and routers that specify the types of traffic they are allowed to interface with the network. These ACLs also specify user permissions once within the network. The network administrator predefines network communication ACL rules. In this way they work similarly to a firewall.

ACLs can also be categorized by the way they describe traffic:

Standard ACL: Blocks or allows an entire protocol packet using source IP addresses.

Extended ACL: Blocks or allows network traffic based on a different set of properties, including source and destination IP addresses and port numbers, as opposed to just the source address.



Data Encryption

Data encryption is very important for internet users. Encryption and protection of private information is very important in today's world where all kinds of information are circulating in the internet world. In this sense, data encryption helps protect private information and sensitive data and aims to increase the security of communication between client applications and servers. In summary, when your data is encrypted, an unauthorized person or organization cannot read it even if it accesses it.

Data encryption is a method of security in which information is encoded and can only be accessed or decrypted by a user with the correct encryption key. Encrypted data, also known as ciphertext, appears to have been scrambled or unreadable by an unauthorized person or organization.

The two most commonly used methods for data encryption are asymmetric encryption and public key, also known as a private key or symmetric encryption. Both are based on key pairs, but they differ in the way sending and receiving parties share keys and manage the encryption/decryption process.

Harden your systems

System hardening is used to reduce vulnerability in technology applications, systems, infrastructure, firmware, and other areas. The purpose of system hardening is to reduce security risk by eliminating potential attack vectors and intensifying the attack surface of the system.

There are several system hardening activities, including:

- Application Hardening
- Operating System Hardening
- Server Hardening
- Database Hardening
- Network Consolidation



Best Practices for Systems Hardening

- 1. Audit your existing systems: Use penetration testing, vulnerability scanning, configuration management, and other security auditing tools to find flaws in the existing system and prioritize fixes.
- 2. Create a strategy and plan based on the risks identified in your technology ecosystem and use a phased approach to address the biggest flaws.
- 3. Fix vulnerabilities now: Make sure you have an automated and comprehensive vulnerability identification and patching system in place.
- 4. Network hardening: Make sure your firewall is configured properly and all rules are checked regularly.
- 5. Server hardening: Put all servers in a secure data center.
- 6. Application hardening: Restrict access to applications based on user roles and context.
- 7. Database hardening: Create administrative restrictions on what users can do to a database, such as controlling privileged access.
- 8. OS hardening: Automatically apply OS updates, service packs, and patches.
- 9. Eliminate unnecessary accounts and privileges: Apply minimal privileges by removing unnecessary accounts and privileges from your IT infrastructure.

Cyber Security Awareness

First and foremost, a staff well-trained in cyber security poses less of a risk to the overall security of an organization's digital network.

Security awareness training is important as it protects an organization against cyber attacks on the system that result in data breaches. The primary focus is on preventing such incidents that lead to brand reputation and financial losses.



Definitions

- **Cybercrime:** Any crime that involves the use of computers to victimize an individual or organization for financial gain.
- **Deep Web:** Sites that make indexing by Internet search engines problematic, due to access control, dynamic content, or other prerequisite mechanisms (e.g., encryption or specialized software). In general, these sites are not accessible to standard web search engine crawlers that perform indexing. This class of sites is also sometimes referred to as the Invisible Web, Hidden Web, or Deepnet.
- **Dark Web:** A subset of Deep Web sites that requires special software (e.g., TOR) to reach. Related infrastructure hosts criminal content such as stolen information and access to premium malware and exploits, and supports other categories of activity, such as illegal pornography, drug trade, prostitution, human trafficking, and terrorist operations. A number of these sites are transient, only up for a short time or constantly changing addresses in an attempt to minimize the risk of exposure to government agencies, law enforcement and security researchers.
- **Cybercrime underground:** Online forums where information, tools (malware, exploits), and services are bought and sold in support of cybercrime objectives. Composite sites exist on the Indexed Web, Deep Web, and Dark Web in varying contexts.





Cyber Threat Intelligence: Dark Web

