Malware group leaks millions of stolen authentication cookies

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To add insult to injury, after users were infected by a malware strain that stole their passwords and personal data, the malware operators forgot to secure their backend servers, which leaked sensitive user information for hundreds of thousands of victims for more than a month.

For weeks, <u>Bob Diachenko</u>, Cyber Threat Intelligence Director at security firm Security Discovery, has been trying to convince a cloud provider to intervene and take down a malware group's server that was leaking **hundreds of thousands of stolen passwords** and **millions of authentication cookies**.

The data was leaked via an Elasticsearch server left exposed online without a password.

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health status	index	uuid	pri	rep d	locs.count doc	s.deleted st	core.size pr	ri.store.size	
vellow open		5pPuXwT3TDaAZtsOv0r21g	1	1	0	0	791.4kb	791.4kb	
vellow open		pwxKL1X5RXaBOLW-xMg7XQ	1	1	1	0	6.2kb	6.2kb	
yellow open		2FdjqqDUQJivhz76rj8KXw	1	1	1	0	3.8kb	3.8kb	
yellow open		BzvVu4XfRi-2zOtC50eV6w	1	1	4	0	19.6kb	19.6kb	
yellow open	info-	1r3CJWpfQE2STdBbmZ0P w	5	1	83	0	369.6kb	369.6kb	
yellow open	password	yt0_NBzGQaCir0VrqPqSCQ	5	1	1224	0	1mb	1mb	
yellow open		Dnj7mSYOT6qVjrhnHnT1RQ	1	1	3920	0	3mb	3mb	
yellow open	stolen	YY5wwfuQRzaI_QSC-JSkog	5	1	4601	0	7.1mb	7.1mb	
yellow open		xyBjLmVtSuaBR90Fjr27xQ	1	1	6145	0	4.7mb	4.7mb	
yellow open		kyc3FiAqTOuSgcyRr18pHA	1	1	7200	0	5.4mb	5.4mb	
yellow open		OGeoVEX6Tq26bWkpib3nvw	1	1	7200	0	5.5mb	5.5mb	
yellow open		D6It-DeMREeYztJ2ipF02w	1	1	7200	0	5.4mb	5.4mb	
yellow open		1Fi94VV1SU6ncV9JPOEqTw	1	1	7200	0	5.5mb	5.5mb	
yellow open		7QFKw3eSguRQwWG29LgMg	1	1	7200	0	5.5mb	5.5mb	
yellow open		x3VxjMeERtCFyxfyf8Ilhw	1	1	7200	0	5.5mb	5.5mb	
yellow open		5tNbc2oJTFqexyNOR_kHSA	1	1	7200	0	5.5mb	5.5mb	
yellow open		QtRuSj3xT9Krx8t25cEuRQ	1	1	7200	0	5.4mb	5.4mb	
yellow open		50XVNm5 SzqI2MnGJ o1sQ	1	1	7200	0	5.4mb	5.4mb	
yellow open		VaCAodIkSsqzWeCtqQP78Q	1	1	7376	0	2.7mb	2.7mb	
yellow open		fk4ATui9Siqxs71J4rmr4w	1	1	8638	0	3.2mb	3.2mb	
yellow open		Gllqjk0XRLagRB01m1XMgQ	1	1	8638	0	3.1mb	3.1mb	
yellow open		ckdC1aM8RA-TnqT8mNuJXg	1	1	8639	0	3.3mb	3.3mb	
yellow open		ssvRebA5QpizwB4GoW4jqA	1	1	8639	0	3.1mb	3.1mb	
yellow open		utg109qrQYaek7N-f9BwJA	1	1	8639	0	3.1mb	3.1mb	
yellow open		ufQ35c70Se-Ra1SUXTg7sw	1	1	8639	0	3.2mb	3.2mb	
yellow open	passwords	Rwg2OSReSr6x4tSFe4YFfw	5	1	100197	0	40.1mb	40.1mb	
yellow open	cookies	0EhMifqTQDm2uiZfd6Kt1w	5	1	122693	0	58.1mb	58.1mb	
yellow open		Vin0TDCIT20j0sQkg-Zcfw	1	1	224828	1018	176.3mb	176.3mb	
yellow open		kbx1nsyuSQiPAcV9BM1ecw	1	1	250769	1036	195.7mb	195.7mb	
yellow open		NilMfB4vQfiuA5Pp-p24Qg	1	1	276707	1440	215.6mb	215.6mb	
yellow open		mpA7bFjQRT-yeIBSuGcV2Q	1	1	288856	1770	241.8mb	241.8mb	
yellow open		HfytbWfRSbe4hvu EGYvQ	1	1	312733	2058	239.5mb	239.5mb	
yellow open		yB-c6qbqRSugJB8ynBbPMg	1	1	321584	1938	247.4mb	247.4mb	
yellow open		iWKxxR3BT4GFF4ohCimxZw	1	1	329503	1624	255.1mb	255.1mb	
yellow open		OFvpeJxvSmWtHObxaA-6hA	5	1	5918442	0	2.4gb	2.4gb	

Image: The Record

The server exposed data that is typically collected by a type of malware known as an infostealer. This type of malware infects devices and then collects user credentials from web browsers, FTP, and email clients, data that is later uploaded to command and control (C&C) servers.

Typically, most C&C servers are hosted on a hacked website or a cheap virtual private server (VPS), and then the data is aggregated in a so-called data lake, where it is centralized for further analysis.

The Elasitcsearch server discovered by Diachenko is believed to be one of these data lakes, where crooks were aggregating their stolen information.

According to <u>Vitali Kremez</u>, CEO of threat intelligence company Advanced Intelligence, and <u>James Maude</u>, lead cyber-security researcher at security firm BeyondTrust, based on the format of the "bot_ID" field assigned to each infected host, the server was collecting data from users infected with version 1.7.2 of the <u>RaccoonStealer</u> malware.

"Racoon is fairly typical Malware-as-a-Service where for \$75-\$200 per month you get access to the toolkit to generate malware payloads and a backend website to administer your campaign from," Maude told *The Record* in an email interview last month.

"It is designed to steal login credentials, credit card information, cryptocurrency wallets, and browser information. People often don't realize, but things like the password store on Chrome are encrypted using the Windows API. This means that if the malware is running in the user context, it can decrypt all the logins saved in the Chrome DB and steal them," Maude said.

And according to data seen by this reporter, Maude was right. The Elasticsearch server did not only hold personal victim data like emails, usernames, and device details but was also storing cleartext passwords and even authentication cookies.

v 1:					
_index:	"stolen_info				
_type:	"record"				
_id:	"AXjlZwTp2MW623Cw1_s1"				
_score:	1				
<pre>_source:</pre>					
username:	"Khaled				
05:	"Windows 10 Pro"				
<pre>v languages:</pre>					
0 :	"English"				
<pre>w programs:</pre>					
0 :	"Google Chrome (78.0.3904.108)"				
1:	"CSGO WaRzOnE Launcher (1.3)"				
2 :	"SafeFinder (1.0.0.0)"				
3 :	"Steam\tX-VPN (50.0)"				
4 :	"Hotspot Shield 8.7.0 (8.7.0.11379)"				
5 :	"Launcher Prerequisites (x64) (1.0.0.0)"				
6:	"Realtek High Definition Audio Driver (6.0.1.7910)"				
7 :	"PremierOpinion (1.3.338.311)"				
<pre>w basic_info:</pre>					
uid:	"5a8cdf84				
<pre>w bot_id:</pre>	"5BAB9CCC639E_Khaled "				
collection_time:	"2019-11-19T13:43:28"				
ip:	"217.164				
country:	"United Arab Emirates"				
an: The Decord					

Image: The Record

▼ 0:				
_index:	"passwords""			
_type:	"record"			
_id:	"AXjLCL0w2MW623Cwk6d8"			
_score:	1			
<pre>_source:</pre>				
inserted_on:	"2021-04-13T11:44:44.290634"			
username:	@outlook.com"			
password:	************			
url:	"https://login.live.com/login.srf"			
browser:	"Google Chrome"			
domain:	"login.live.com"			
username_domain:	"outlook.com"			
<pre>w basic_info:</pre>				
uid:	"fc705269-9631-4af2-a080-228b93ae9b73"			
bot_id:	"BE6A-0D6604EBE5F8			
collection_time:	"2019-11-19T14:41:53"			
ip:	"217.164.""			
country:	"United Arab Emirates"			

Image: The Record

* 1.						
_index: "stolen_cookies""						
_type:	"record"					
_id: "AXjLCHZQ2MW623Cwk419"						
_score:	1					
<pre>_source:</pre>						
inserted_on:	"2021-04-13T11:44:22.486307"					
cookie_key:	•	и				
	Bs%3A6%3A%22_to % ious%22%3Ba%3A1 % raster.com%2Fred % 3B1%3A157416660 % &22flash%22%3Ba	LCAbGSm51WaMP1m7dl 2%3Bs#3A48%3A%22h 22%3B%7Ds%3A9%3A% i%3A1574166603%3B: ld%22%3Ba%3A%%3A%	\$\$3A9 \$\$3A1 20\$22\$3B A0\$3A\$7B			
domain:	"thegoodcaster.com"					
expiration_timestamp:	"2019-11-19T14:30:02+00:00"					
browser:	"chrome"					
<pre>w basic_info:</pre>						
uid:	-c1e8-4f68-	r				
▼ bot_id:	"	_Khaled "				
collection_time:	"2019-11-19T13:43:28"					
ip:	"217.164"					
country:	"United Arab Emirates"					

Image: The Record

In the leaked data, we found credentials and cookies for email accounts, social media profiles, work applications, and even government portals.

Of the entire data collected in the server, the most prevalent were authentication cookies, collected in the millions, rather than passwords, which were only hundreds of thousands.

The reason why the threat actor focused on stealing authentication cookies is that they allow better and easier access to an account compared to usernames and passwords.

Auth cookies, as they are also called, allow intruders to access victim accounts without needing to authenticate using usernames and passwords and even bypass any two-step verification process that victims might have had in place.

For this reason, authentication cookies are highly prized in the cybercrime ecosystem. Cybercrime marketplaces such as <u>Genesis</u> or <u>RichLogs</u> often list authentication cookies for sale on their portals.

Server disappeared today without a trace

But while Diachenko has been fighting for weeks with little success to get the cloud provider to intervene and take down this malware gang's data, the server mysteriously disappeared earlier today.

At the time of writing, it is unclear if the cloud provider finally decided to act or if the malware gang saw Diachenko and this reporter sift through the data while preparing this article.

Diachenko told *The Record* he plans to provide parts of the stolen data he discovered in the now-defunct Elasticsearch server to Troy Hunt, the operator of the Have I Been Pwned portal, so the data can be indexed and allow users to check if their account passwords and cookies were compromised. Diachenko said most of the data was for users living in the United Arab Emirates and other Middle East countries.

We will update this article when the stolen data is going to be added to HIBP, so readers can know they can check it there.

Tags

- authentication cookies
- <u>cookies</u>
- credentials
- data leak
- Elasticsearch
- infostealer
- <u>leak</u>
- <u>malware</u>
- passwords
- Raccoon
- <u>RaccoonStealer</u>

Catalin Cimpanu is a cybersecurity reporter for The Record. He previously worked at ZDNet and Bleeping Computer, where he became a well-known name in the industry for his constant scoops on new vulnerabilities, cyberattacks, and law enforcement actions against hackers.