

Hiveforce Labs
WEEKLY

### THREAT DIGEST

**Attacks, Vulnerabilities and Actors** 23 to 29 OCTOBER 2023

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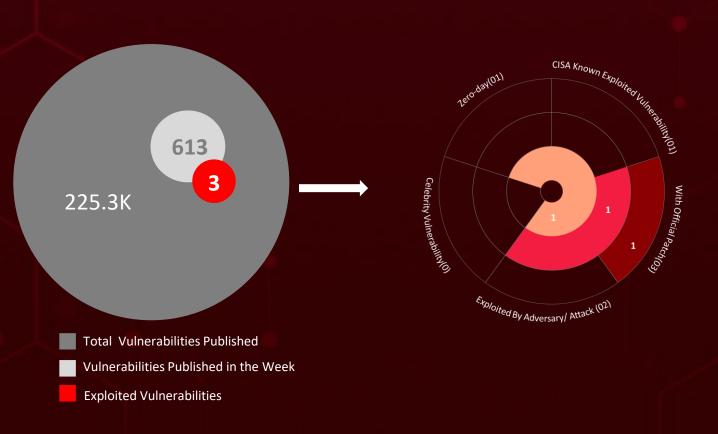
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## **Summary**

HiveForce Labs has recently made several significant discoveries related to cybersecurity threats. Over the past week, we identified a total of **seven** executed attacks, **two** instances of adversary activity, and **three** exploited vulnerability, highlighting the everpresent danger of cyberattacks.

Furthermore, HiveForce Labs uncovered a Malware Framework named <u>StripedFly</u>, establish network persistence, gain a comprehensive insight into network activities, and exfiltrate credentials from approximately one million Windows and Linux systems.

Meanwhile, A critical zero-day flaw, <u>CVE-2023-5631</u>, affecting Roundcube instances is being actively exploited. Also, the Roundcube flaws, exploited by <u>Winter Vivern</u>. These observed attacks have been on the rise, posing a significant threat worldwide.



# **High Level Statistics**

7 Attacks Executed

Vulnerabilities
Exploited

Adversaries in Action

- Quasar RAT
- <u>Netrunner</u>
- Dmcserv
- ExelaStealer
- GoPIX
- StripedFly
- ThunderCrypt

- CVE-2023-34051
- CVE-2023-5631
- CVE-2023-34048
- YoroTrooper
- Winter Vivern

# -্টু Insights

#### **ExelaStealer**

New InfoStealer malware an opensource tool, customizable for a fee

#### **GoPIX**

A typical clipboard stealer malware steals PIX transactions

### StripedFly

An intricate cross-platform malware framework exfiltrate credentials from approximately one million Windows and Linux systems

### **VMware Aria Operations for Logs**

a critical authentication bypass vulnerability (CVE-2023-34051) in VMware allows RCE with root privileges under certain conditions, raising concerns for compromised networks

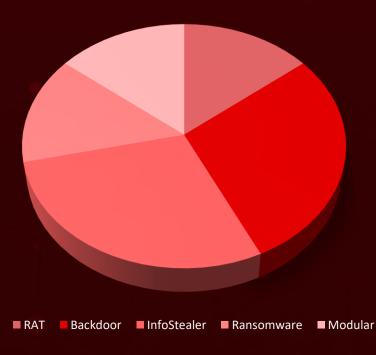
### Roundcube 0-day

A zero-day vulnerability, CVE-2023-5631 in the Roundcube webmail exploited by Winter Vivern

#### **Quasar RAT**

An open-source remote access trojan uses DLL side-loading to avoid detection

#### **Threat Distribution**

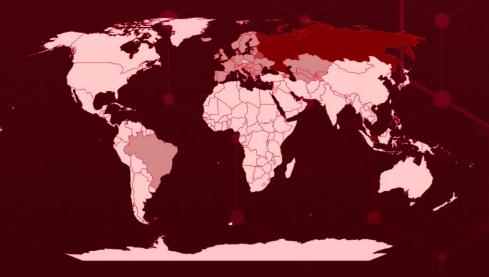




# **Targeted Countries**

Most

Least



Countries
Russia
Belarus
Moldova
Norway
Uzbekistan
Spain
Austria
Armenia
Azerbaijan
San Marino
Andorra
Turkmenistan
Belgium
Lithuania
Bosnia and
Herzegovina
Netherlands
Brazil
Portugal
Bulgaria
Slovakia

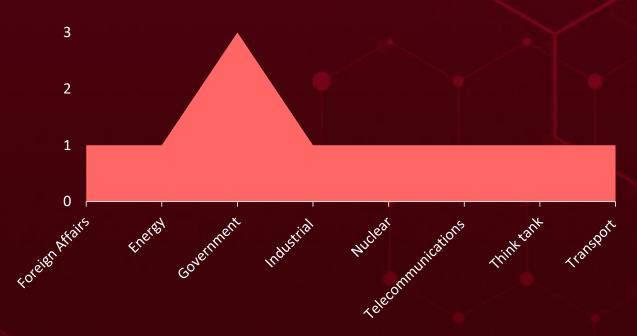
Countries
Switzerland
Czech Republic
(Czechia)
United Kingdom
Denmark
Liechtenstein
Estonia
Luxembourg
Malta
Monaco
Finland
Montenegro
France
North Macedonia
Germany
Poland
Greece
Albania
Romania
Holy See
Serbia
Hungary
Slovenia
Iceland

Countries
Sweden
Ireland
Tajikistan
Italy
Ukraine
Kazakhstan
Kyrgyzstan
Latvia
Turkey
Bahamas
Pakistan
<b>Equatorial Guinea</b>
Sri Lanka
Eritrea
New Zealand
Barbados
Congo
Eswatini
Cyprus
Ethiopia
Dominican
Republic
Fiji
Uruguay

Cou	ntries
Nort	th Korea
Alge	ria
Para	iguay
Gab	on
Rwa	nda
Gam	nbia
Cuba	a
Geo	rgia
Sout	th Africa
Beliz	ze
Suri	name
Gha	na
Togo	
Beni	in
Ecua	ador
Grei	nada
Nep	al
Gua	temala
Nige	er
Guir	nea
Colo	mbia
Guir	nea-Bissau
Pana	ama
Guy	
Phili	ippines

Croatia

## **M** Targeted Industries



### **TOP MITRE ATT&CK TTPS**

#### T1027

Obfuscated
Files or
Information

#### T1059

Command and Scripting Interpreter

#### <u>T1041</u>

Exfiltration Over C2 Channel

#### T1588.006

Vulnerabilities

### T1566 Phishing

#### **T1190**

Exploit Public-Facing Application

#### <u>T1036</u>

Masquerading

#### T1071.001

Web Protocols

#### <u>T1583</u>

Acquire Infrastructure

#### T1140

Deobfuscate/
Decode Files
or Information

#### T1547.001

Registry Run Keys / Startup Folder

#### <u>T1056</u>

**Input Capture** 

#### T1574

Hijack Execution Flow

#### T1203

Exploitation for Client Execution

#### T1588

Obtain Capabilities

#### T1497

Virtualization/S andbox Evasion

#### T1518.001

Security Software Discovery

#### T1005

Data from Local System

#### T1055.012

Process Hollowing

#### T1583.004

Server

## **X Attacks Executed**

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
Quasar RAT (aka	Quasar RAT is an open-	DLL side-loading	
xRAT, CinaRAT, Yggdrasil)	source remote administration tool	IMPACT	AFFECTED
ТҮРЕ	developed in C#. It comes with		PRODUCTS
RAT	a variety of features,		-
ASSOCIATED ACTOR	including the ability to gather system information, list running applications, retrieve files, log keystrokes, capture screenshots, and execute arbitrary shell commands on the compromised host.	Deploying and executing malicious payloads	PATCH LINK
<u>-</u>			-
IOC TYPE	VALUE		
SHA256	5e3e65909b68d631913056a90e3da3e86c5378719f6d910d55989600d2a36cd1, 17ef487d5567c1fa318ae31b821746d6071dc21490de778359095e014127dff5, 8bd0ac703bd20a29a588599e2a3ee59d21e53cb356eea4a624ae859eaa23a381, f5e916891cb6585fb06e655518a64223aae96691f77e768398b32bfd7d9a90e0, b55588176b3531a9ecf8ba0e5b5a979df21046c46a63fb0e4ae225095a18b558		

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
<u>Netrunner</u>	Netrunner is a custom Go-based backdoor that performs data theft, likely aiding espionage operations. The backdoor is distinguished primarily by its command-and-control server configurations.	Phishing	-
ТҮРЕ		IMPACT	AFFECTED PRODUCTS
Backdoor		Data Theft	-
ASSOCIATED ACTOR			PATCH LINK
-			-
IOC TYPE	VALUE		
MD5	6086673A65B85B3463B551BA611EE6E6		

The IOCs (Indicators of Compromise) for the attacks executed are listed in the appendix section at the end of the report.

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
<u>Dmcserv</u>	Dmcserv is a custom Go- based backdoor that performs data theft, likely aiding espionage operations. The backdoor is distinguished primarily by its command-and-control server configurations.	Phishing	-
ТҮРЕ		IMPACT	AFFECTED PRODUCTS
Backdoor		Data Theft	-
ASSOCIATED ACTOR			PATCH LINK
-			-
IOC TYPE	VALUE		
MD5	16074C7518B2E5A3335CCF5AAA469470		

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
<u>ExelaStealer</u>	Exela Stealer is a Python- based tool designed to discreetly extract sensitive data, including credentials, tokens, sessions, cookies, and more. It accomplishes this covert data exfiltration solely through Discord webhook URLs.	-	-
ТҮРЕ		IMPACT	AFFECTED PRODUCTS
InfoStealer		Gather sensitive data, including passwords, credit card information, cookies, sessions, and keystrokes.	-
ASSOCIATED ACTOR			PATCH LINK
-			-
IOC TYPE	VALUE		
SHA256	b9bc445af6729a95599f1a39e37f559f3ca18dbbc8ae4e60263af565ef4f4db3, 882484b56ad4418786852f401b1b81f31030bec8566b6b07c9798d4ea3033516, ccb1337383351bb6889eb8478c18c0142cb99cbb523acc85d0d626d323f5d7ad, d8488f93b8c096838b3d9b335091216667ce4ffc7ae2cf3c8925271f0f190c11, b6ca47065e68aebb007657ff0e6b0dfa0fc4e19823f336ab73f42b25dd5cfc22		

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NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
<u>GoPIX</u>	GoPIX is a typical clipboard stealer malware that steals PIX "transactions" used to identify payment requests and replaces them with a malicious one which is retrieved from the C2. The malware also supports substituting Bitcoin and Ethereum wallet addresses.	Phishing	-
ТҮРЕ		IMPACT	AFFECTED PRODUCTS
Stealer			-
ASSOCIATED ACTOR		Steal PIX transactions, financial and personal information.	PATCH LINK
<u>-</u>			-
IOC TYPE	VALUE		
MD5	EB0B4E35A2BA442821E28D617DD2DAA2, 6BA5539762A71E542ECAC7CF59BDDF79, 333A34BD2A7C6AAF298888F3EF02C186		

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
	StripedFly is a complex modular malware, enabling attackers to establish network persistence,	-	-
<u>StripedFly</u>		IMPACT	AFFECTED PRODUCTS
	gain a		
ТҮРЕ	comprehensive insight into network activities,		-
Modular	and exfiltrate credentials. It boasts advanced features such as TOR-based traffic obscuring methods for communication with command servers, automated update and delivery capabilities.	Inject Shellcode	
ASSOCIATED ACTOR			PATCH LINK
-			<del>-</del>
IOC TYPE	VALUE		
MD5	b28c6d00855be3b60e220c32bfad2535, 18f5ccdd9efb9c41aa63efbe0c65d3db, 2cdc600185901cf045af027289c4429c, 54dd5c70f67df5dc8d750f19ececd797, d32fa257cd6fb1b0c6df80f673865581		

The IOCs (Indicators of Compromise) for the attacks executed are listed in the appendix section at the end of the report.

NAME	OVERVIEW	DELIVERY METHOD	TARGETED CVEs
		-	-
<u>ThunderCrypt</u>	ThunderCrypt is a ransomware-type virus distributed via fake Adobe Flash Player updates. Once infiltrated, ThunderCrypt encrypts various data using RSA-2048 cryptography. It opens a pop-up window containing a ransomdemand message	IMPACT	AFFECTED PRODUCTS
ТҮРЕ		Demand Ransom	-
Ransomware			
			PATCH LINK
-			-
IOC TYPE	VALUE		
MD5	120f62e78b97cd748170b2779d8c0c67, d64361802515cf32bd34f98312dfd40d, 3281b2d95e7123a429001400c10ebe28		
SHA256	8258c53a44012f6911281a6331c3ecbd834b6698b7d2dbf4b1828540793340d1		
SHA1	b97308ea9f9c410188d43c34a867fa42c9e9128e		

# **We Vulnerabilities Exploited**

CVE ID	CELEBRITY VULNERABILITY	AFFECTED PRODUCTS	ASSOCIATED ACTOR
CVE-2023-34051	8	Vmware Aria Operations for Logs (formerly vRealize Log Insight): 8.0.0 - 8.12	-
	ZERO-DAY		
	8	AFFECTED CPE	ASSOCIATED ATTACKS/RANSOMW ARE
NAME	CISA KEV	cpe:2.3:a:vmware:v reaalize log insight	-
VMware Aria Operations for Logs Authentication Bypass Vulnerability	×	:8.12:*:*:*:*:*:*	
	CWE ID	ASSOCIATED TTPs	PATCH LINK
	CWE-287	T1190: Exploit Public- Facing Application	https://www.vmware. com/security/advisori es/VMSA-2023- 0021.html

CVE ID	CELEBRITY VULNERABILITY	AFFECTED PRODUCTS	ASSOCIATED ACTOR
CVE-2023-5631	8	Roundcube: 1.0.0 - 1.6.3	Winter Vivern
	ZERO-DAY		
	<b>⊘</b>	AFFECTED CPE	ASSOCIATED ATTACKS/RANSOMWA RE
NAME	CISA KEV		
Roundcube Cross Site Scripting Vulnerability	<b>⊘</b>	cpe:2.3:a:roundcube:webmail: *:*:*:*:*:*:*	
	CWE ID	ASSOCIATED TTPs	PATCH LINK
	CWE-79	T1190: Exploit Public-Facing Application	https://roundcube.net/download/

CVE ID	CELEBRITY VULNERABILITY	AFFECTED PRODUCTS	ASSOCIATED ACTOR
CVE-2023-34048	ZERO-DAY	vCenter Server: 7.0-7.0U3n 8.0- 8.0Ulc, VMware Cloud Foundation 5.x, 4.x AFFECTED CPE	-
	8		ASSOCIATED ATTACKS/RANSOMWA RE
NAME	CISA KEV	cpe:2.3:a:vmware:vcenter-server:8.0:U1c:*:*:*:*:*	-
	CWE ID	ASSOCIATED TTPs	PATCH LINK
VMware vCenter Out-of-Bounds Write Vulnerability	CWE-787	T1059: Command and Scripting Interpreter	https://customerconnect.vmware.com/downloads/details?downloadGroup=VC80U2&productId=1345&rPId=110105, https://customerconnect.vmware.com/downloads/details?downloadGroup=VC80U1D&productId=1345&rPId=112378, https://customerconnect.vmware.com/downloads/details?downloadGroup=VC70U3O&productId=974&rPId=110262, https://kb.vmware.com/s/article/88287

## Adversaries in Action

NAME	ORIGIN	TARGETED INDUSTRIES	TARGETED COUNTRIES
	Unknown		
	MOTIVE		Azerbaijan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan and Europe
YoroTrooper	Information theft and espionage	Energy and Government	
	TARGETED CVEs	ASSOCIATED ATTACKS/RANSOMW ARE	AFFECTED PRODUCTS
	-	-	-

#### **TTPs**

T1595: Active Scanning; T1590: Gather Victim Network Information; T1588.006: Vulnerabilities; T1190: Exploit Public-Facing Application; T1566: Phishing; T1059: Command and Scripting Interpreter; T1548: Abuse Elevation Control Mechanism; T1574: Hijack Execution Flow; T1027: Obfuscated Files or Information; T1046: Network Service Discovery; T1105: Ingress Tool Transfer; T1041 Exfiltration Over C2 Channel

NAME	ORIGIN	TARGETED INDUSTRIES	TARGETED COUNTRIES
	Unknown		
	MOTIVE		India, Lithuania, Poland, Slovakia, Ukraine, USA and Europe
Winter Vivern (aka UAC-0114, TA473)	Information theft and espionage	Defense and Government	
	TARGETED CVEs	ASSOCIATED ATTACKS/RANSOMW ARE	AFFECTED PRODUCTS
CVE-2023-5631		-	Roundcube

#### **TTPs**

T1583: Acquire Infrastructure; T1583.001: Domains; T1583.004: Server; T1587: Develop Capabilities; T1587.004: Exploits; T1190: Exploit Public-Facing Application; T1566: Phishing; T1203: Exploitation for Client Exécution; T1087: Account Discovery; T1087.003: Email Account; T1114: Email Collection; T1114.002: Remote Email Collection; T1071: Application Layer Protocol; T1071.001: Web Protocols; T1041: Exfiltration Over C2

## **Recommendations**

#### **Security Teams**

This digest can be utilized as a drive to force security teams to prioritize the **three exploited vulnerabilities** and block the indicators related to the threat actor **YoroTrooper, Winter Vivern** and malware **Quasar RAT, Netrunner, Dmcserv, ExelaStealer, GoPIX, StripedFly, ThunderCrypt**.

#### **Uni5 Users**

This is an actionable threat digest for HivePro Uni5 customers and they can get comprehensive insights into their threat exposure and can action it effortlessly over the HivePro Uni5 dashboard by

- Running a Scan to discover the assets impacted by the three exploited vulnerabilities.
- Testing the efficacy of their security controls by simulating the attacks related to the threat actor YoroTrooper, Winter Vivern and malware Quasar RAT, Netrunner, Dmcserv, ExelaStealer, GoPIX, StripedFly, ThunderCrypt in Breach and Attack Simulation(BAS).

## **State Advisories**

Quasar RAT Utilizes DLL Side-Loading to Evade Detection

**Hackers Infiltrate Russian Government and Industrial Entities** 

**ExelaStealer: A New Entrant in the InfoStealer Landscape** 

Attackers Exploit VMware's Aria Operations for Logs Vulnerability

Attackers Exploit Brazil's PIX System with GoPIX Malware Campaign

YoroTrooper Covert Cyber Espionage Masters of Kazakhstan

Winter Vivern Capitalizes on Zero-Day Flaw in Roundcube

**Vmware vCenter Flaws Leading to RCE Attacks** 

Redefining the StripedFly Malware Framework

## **Appendix**

**Known Exploited Vulnerabilities (KEV): S**oftware vulnerabilities for which there are public exploits or proof-of-concept (PoC) code available, and for which there is a high risk of potential harm to an organization's systems or data if left unaddressed.

**Celebrity Vulnerabilities:** Software vulnerabilities that have gained significant attention and been branded with catchy names and logos due to their impact on high-profile individuals and celebrities are also referred to as Celebrity Publicized Software Flaws.

### **№ Indicators of Compromise (IOCs)**

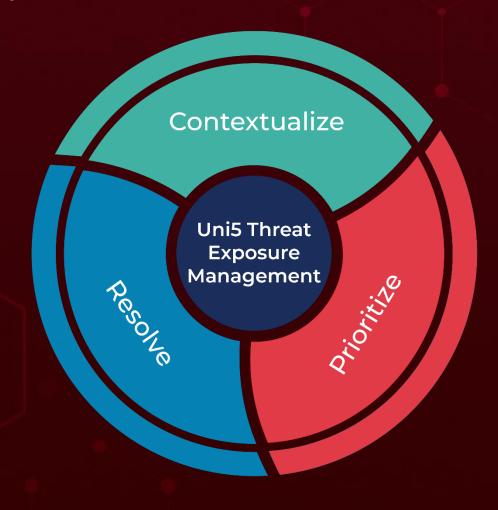
Attack Name	TYPE	VALUE
Quasar RAT	SHA256	5e3e65909b68d631913056a90e3da3e86c5378719f6d910d559896 00d2a36cd1, 17ef487d5567c1fa318ae31b821746d6071dc21490de778359095e 014127dff5, 8bd0ac703bd20a29a588599e2a3ee59d21e53cb356eea4a624ae85 9eaa23a381, f5e916891cb6585fb06e655518a64223aae96691f77e768398b32bf d7d9a90e0, b55588176b3531a9ecf8ba0e5b5a979df21046c46a63fb0e4ae2250 95a18b558, 7aa071e2184478eb932bd815a0eb393fb5efd7b322e3d333b908a9 d7d33a4186, b55588176b3531a9ecf8ba0e5b5a979df21046c46a63fb0e4ae2250 95a18b558, 6dfe949ce3664c802ecd34968f18f0e9fc15f6fab58b35272ed7e83a b2442f2b, d64ec3e1fd63333c0d31d524027260e3d61c27921ab3d922a5a475 88942ea051, c7550dc220b264239f7250607d6af8a0123107be4c377a3c94e5f8e 63984b17d, 6ed6ea86dae39ff40a2b03781c2bbf13f5c7bc022d5419ef82d1d5f6 1535358c, d40f6568584ba4a9bda4e27dd7ef8f86620b648df32aee2eeb9c900 de1b89f7d, 6cf1314c130a41c977aafce4585a144762d3fb65f8fe493e836796b9 89b002cb, ec8188e4e07aceea9afd588332ffb08549cc610364d8cd4695200f29 b70da153, 6ff6f0407f18ac2a5cf56dd333998e5319f769f16d37b8f3cbf56e0f97 e7b3d2,

Attack Name	ТҮРЕ	VALUE	
<u>Netrunner</u>	MD5	6086673A65B85B3463B551BA611EE6E6	
<u>Dmcserv</u>	MD5	16074C7518B2E5A3335CCF5AAA469470	
<u>ExelaStealer</u>	SHA256	b9bc445af6729a95599f1a39e37f559f3ca18dbbc8ae4e60263af565 ef4f4db3, 882484b56ad4418786852f401b1b81f31030bec8566b6b07c9798d 4ea3033516, ccb1337383351bb6889eb8478c18c0142cb99cbb523acc85d0d626 d323f5d7ad, d8488f93b8c096838b3d9b335091216667ce4ffc7ae2cf3c8925271f Of190c11, b6ca47065e68aebb007657ff0e6b0dfa0fc4e19823f336ab73f42b25 dd5cfc22, 206278545b897a7e2ebb1ec4687e6ec31d7ca8f1828792a34f4fca7 45db8e3d4, 53b1b3c6f73312cdae7be69d16a42d298fae0cb3721c7fc11252f65b 10f5a323, 2db54628a877ab40463a128496cb94523ccae6186d1648c6f372c71 9f6ed8152	
<u>GoPIX</u>	MD5	EB0B4E35A2BA442821E28D617DD2DAA2, 6BA5539762A71E542ECAC7CF59BDDF79, 333A34BD2A7C6AAF298888F3EF02C186	
<u>StripedFly</u>	MD5	b28c6d00855be3b60e220c32bfad2535, 18f5ccdd9efb9c41aa63efbe0c65d3db, 2cdc600185901cf045af027289c4429c, 54dd5c70f67df5dc8d750f19ececd797, d32fa257cd6fb1b0c6df80f673865581, c04868dabd6b9ce132a790fdc02acc14, c7e3df6455738fb080d741dcbb620b89, d684de2c5cfb38917c5d99c04c21769a, a5d3abe7feb56f49fa33dc49fea11f85, 35fadceca0bae2cdcfdaac0f188ba7e0, 00c9fd9371791e9160a3adaade0b4aa2, 41b326df0d21d0a8fad6ed01fec1389f, 506599fe3aecdfb1acc846ea52adc09f, 6ace7d5115a1c63b674b736ae760423b, 2e2ef6e074bd683b477a2a2e581386f0, 04df1280798594965d6fdfeb4c257f6c, abe845285510079229d83bb117ab8ed6, 090059c1786075591dec7ddc6f9ee3eb	
<u>ThunderCrypt</u>	MD5	120f62e78b97cd748170b2779d8c0c67, d64361802515cf32bd34f98312dfd40d, 3281b2d95e7123a429001400c10ebe28	
	SHA256	8258c53a44012f6911281a6331c3ecbd834b6698b7d2dbf4b18285 40793340d1	
	SHA1	b97308ea9f9c410188d43c34a867fa42c9e9128e	

### What Next?

At <u>Hive Pro</u>, it is our mission to detect the most likely threats to your organization and to help you prevent them from happening.

Book a free demo with <u>HivePro Uni5</u>:Threat Exposure Management Platform.



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