Cyber Threat Detection & Discovery Report

Incident Name	Cyber Smurfs Threat Detection & Discovery
Report Author	Cyber Smurfs
Report Date	Created - 20 JUN 23
Revision Dates	Last Revision - 23 JUN 23

Executive Summary

Over the past week, our AWS VPC has been the target of intrusion attempts by an adversary characterized as low-skilled, yet persistent and determined. This actor engaged in a series of noisy and broad-spectrum attacks, predominantly utilizing port scanning and brute force techniques, highlighting their desire to identify and exploit potential vulnerabilities. The adversary's tactics, techniques, and procedures (TTPs), although not sophisticated, were consistent, indicating a potential threat that requires appropriate attention and response.

In response to these intrusion attempts, we've enhanced our security measures to protect against similar incidents. Although no direct harm came to our systems or personnel during these attacks, they served as a glaring reminder of the constant threats in the digital landscape. We continue to monitor these threats and adapt our strategies to ensure the continued security of our VPC infrastructure. The remainder of this report provides an in-depth analysis of the observed adversary activities.

Description of Adversary

The adversary can be categorized as a low-skilled, persistent, and determined actor based on their intrusion attempts. The attacker repeatedly engaged in noisy and highly visible activities, primarily using port scanning and brute force attacks. The adversary's potential customer is likely to be a malicious actor interested in gaining unauthorized access to our systems for exploitation purposes, data theft, or a related illicit activity. The motivations behind these actions could range from curiosity or monetary gain, to potentially more damaging objectives like espionage or sabotage.

In terms of the intrusion kill chain, the reconnaissance phase was evident in the port scanning activities that occurred at different times. The noisy approach indicates a lack of finesse and stealth usually associated with more advanced adversaries. The weaponization and delivery phases were apparent in the brute force attacks aimed at our Metasploitable EC2 instance and Accounting2 EC2 instance.

Adversary's Capabilities

Despite the apparent low level of sophistication, the adversary displayed consistent use of recognized tactics, techniques, and procedures (TTPs). Despite the apparent low level of sophistication, the adversary displayed consistent use of recognized tactics, techniques, and procedures (TTPs). These included large scale port scanning as a method of identifying potential vulnerabilities within our system, as well as brute force attacks in an attempt to gain unauthorized access to our systems.

Overall, the adversary's capabilities are relatively limited, relying on brute force and simple scanning techniques. However, their persistence signals a potential threat that should not be overlooked. Continued monitoring and implementing stronger security measures can help mitigate any potential risks posed by such an actor.

Victims and Affected Assets

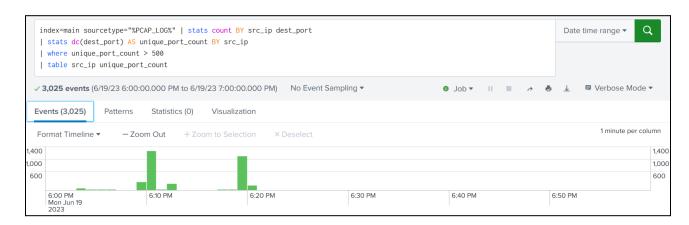
Although no personal identifiers or specific personnel within the organization were directly targeted or affected to our knowledge, the intrusion attempts represent a significant risk to the broader security and integrity of our systems. Therefore, while the adversary was not tremendously successful this time, these instances demonstrate the necessity of maintaining robust security measures to protect all individuals and assets connected to our network.

Attacks Discovered

19 JUN 23

Port Scanning (18:09 CT) - Between approximately 18:09:00 and 18:20:00 CDT port scanning was identified using the query below.

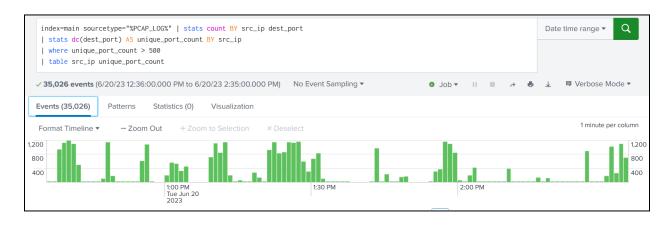
- Query searches the main index on 19 JUN for network traffic entries (%PCAP_LOG%) where the source IP has connected to more than 500 unique destination ports.
- 3025 log events were returned



20 JUN 23

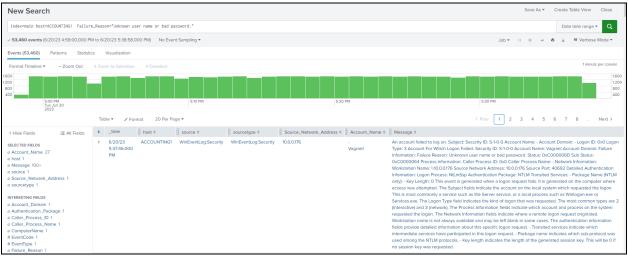
Port Scanning (20 Jun, 12:38 CT) - Between approximately 12:38:00 and ??:??:00 CDT port scanning was identified using the query below.

- Query searches the main index on 20 JUN for network traffic entries (%PCAP_LOG%) where the source IP has connected to more than 500 unique destination ports.
- 3025 log event were returned

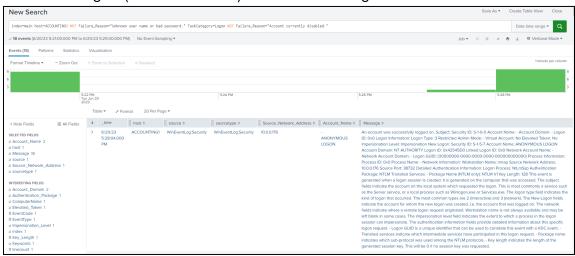


ACCOUNTING1 Investigation:

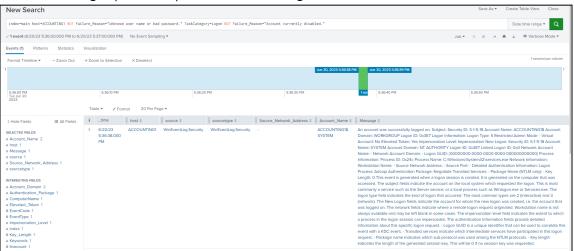
Brute Force Attack (16:58 - 17:38 CT) - 53,460 Failed attempts



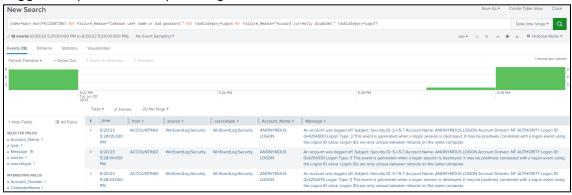
Successful Logins (17:21 - 17:29 CT) - 18 successful logins



Successful Login (17:36 CT) - 1 successful Login

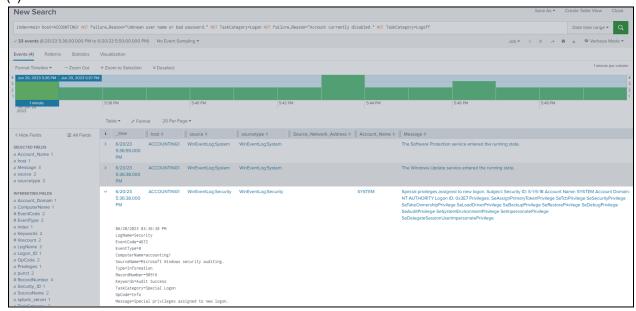


Logged off (17:21 - 17:29) - 18 log off events.

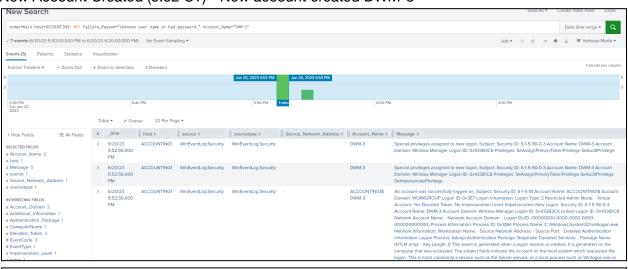


New Account Created (17:36 CT) - New account created accounting1 with special privileges.

(?)



New Account Created (5:52 CT) - New account created DWM-3



>	6/20/23 5:52:56.000 PM	ACCOUNTING	WinEventLog:Security	WinEventLog:Security	ACCOUNTING1\$ UMFD-3	A logon was attempted using explicit credentials. Subject: Security ID: S-1-5-18 Account Name: ACCOUNTINGIS Account Domain: WORKGROUP Logon ID: 0x8F7 Logon GUID: (00000000-00000-0000-00000000000000000
>	6/20/23 5:52:56.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	ACCOUNTING1\$	Cryptographic operation. Subject: Security ID: S-1-5-20 Account Name: ACCOUNTING1\$ Account Domain: WORKGROUP Logon ID: 0x384 Cryptographic Parameters: Provider Name: Microsoft Software Key Storage Provider Algorithm Name: RSA Key Mame: TSSecKeySet1 Key Type: Machine key. Cryptographic Operation: Operation: Open Key. Return Code: 0x0
>	6/20/23 5:52:56,000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	ACCOUNTING1\$	Key file operation. Subject: Security ID: S-1-5-20 Account Name: ACCOUNTING1\$ Account Domain: WORKGROUP Logon ID: 0x384 Process Information: Process ID: 344 Process Creation Time: 2023-06-1573-462-4460230020C Cryptographic Parameters: Provider Name: Microsoft Software Key Storage Provider Algorithm Name: UNKNOWN Key Name: TSSecKeySett Key Type: Machine key. Key File Operation Information: File Path: CPProgramDataMicrosoft(CryptoirSAMachineKeys)1686aace6942fb777ceb231212eefda4_12954127-839b-4c25-ac34-b941007e8544 Operation: Read persisted key from file. Return Code: 0x0

>	6/20/23 6:56:39.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	SYSTEM	Account Domain: NT AUTHO SeTcbPrivilege SeSecurityPriv SeBackupPrivilege SeRestor	o new logon, Subject: Security ID: S-15- PRITY Logon ID: 0x3E7 Privileges: SeAss vilege SeTakeOwnershipPrivilege SeLoa ePrivilege SeDebugPrivilege SeAuditPriv ge SelmpersonatePrivilege SeDelegate!	ignPr idDrii vileg	rimaryTokenPrivilege verPrivilege e
>	6/20/23 6:56:39.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	ACCOUNTING1\$ SYSTEM	Mil account was succession	3 events Exclude from search	[2]	unt Name: ACCOUNTING1\$ 1 Type: 5 Restricted Admin ersonation New Logon: RITY Logon ID: 0x3E7

New Account Created (18:56) - New account created called SYSTEM (?)

>	6/20/23 6:56:39.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	SYSTEM	Special privilege assigned to new logon. Subject. Security ID: S-15-18 Account Name: SYSTEM Account Domain: NT AUTHORITY Logon ID: Ox82F Philaleges: SeAsaignPrimanyTokenPhilage SeSEchtifflege SeSEcutifyPhilage SeSEcutifyPhilage SeSEcutifflege SeSEcutifflege SeSEcutifflege SeSEcutified SeSEcutified SeSECUTIFIED SESSECUTIFIED SESSECUTIFI
>	6/20/23 6:56:39.000 PM	ACCOUNTING	WinEventLog:Security	WinEventLog-Security -	ACCOUNTINGIS SYSTEM	An account was successfully logged on. Subject: Security ID: S-15-18 Account Name: ACCOUNTINGIS Account Domain: WORKSGOUL Logon ID: 0x87 Logon Information: Logon IT/Dres Sterictical Admin Mode: - Virtual Account: No Elevated Token: Yes Impersonation Level: Impersonation New Logon: Security ID: S-15-18 Account Name: SYSTEM Account Domain: NT AUTHORITY Logon ID: 0x3E7 Linked Logon ID: 0x0 Network Account Name: Network Account Domain: NT AUTHORITY Logon ID: 0x3E7 Linked Logon ID: 0x0 Network Account Name: Network Account Domain: NT AUTHORITY Logon ID: 0x3E7 Linked Logon ID: 0x0 Network Account Name: Network Account Domain: - Logon GIDI: 0x0000000-0000-0000-000000000000000000
>	6/20/23 6:56:30.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	SYSTEM	Special privileges assigned to new logon. Subject: Security ID: S-1-5-18 Account Name: SYSTEM Account Domain: NT AUTHORITY Logon ID: 0x3E7 Privileges: SeAssignPrimaryTokenPrivilege SeTcbPrivilege SeSecurityPrivilege SeTakeOwnershipPrivilege SeLoadDriverPrivilege SeBackupPrivilege SeRestorePrivilege SeDebugPrivilege SeAudtPrivilege SePostemPrivilege SeDebugPrivilege SeDebugPriv
>	6/20/23 6:56:30.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog/Security -	ACCOUNTING1\$ SYSTEM	An account was successfully logged on. Subject: Security ID: S-15-18 Account Name: ACCOUNTINGIS Account Domain: WORKGROUP Logon ID: 0x8E7 Logon Information: Logon Type: 5 Restricted Admin Mode: - Virtual Account: No Elevated Token: Wes Impersonation Level: Impersonation New Logon: Security ID: S-15-18 Account Name: SYSTEM Account Domain: NT AUTHORITY Logon ID: 0x8E7 Linked Logon ID: 0x0 Network Account Name: Network Naccount Name: Network Naccount Name: Network Naccount Name: Network Naccount Name: Network Name: Network Name: Network Name: Na

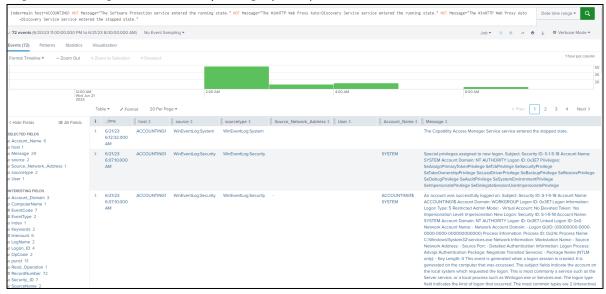
21 JUN 23

ACCOUNTING1 Investigation

Credentials were read (Throughout the day)

>	6/21/23 2:46:29.000 AM	ACCOUNTING	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-548806118-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/21/23 2:46:29.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-548806118-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/21/23 2:46:29.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-548806118-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/21/23 2:46:29.000 AM	ACCOUNTING	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412- 549806118-1004 Account Name: user Account Domain: ACCOUNTING1 Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/21/23 2:46:29.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412- 548806118-1004 Account Name: user Account Domain: ACCOUNTING1 Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/21/23 2:46:29.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412- 548806118-1004 Account Name: user Account Domain: ACCOUNTING1 Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.

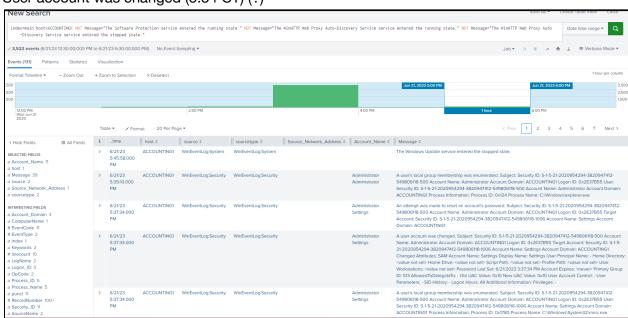
Login and changes to SYSTEM privilege (02:56)



Credentials were read and special privileges were assigned SYSTEM (11:30 - 12:30 CT) (?)



User account was changed (5:34 CT) (?)



>	6/21/23 5:34:31.000 PM	ACCOUNTING	WinEventLog:Security	WinEventLog/Security	Administrator Settings	A user account was changed. Subject: Security ID: 5-15-21-2020954294-3820947412-549806118-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2537855 Target Account: Security ID: 5-15-12-2020954294-3820947412-549806118-1006 Account Name: Settings Disary Account Domain: ACCOUNTING1 Changed Attributes: SAM Account Name: Settings Disary Principal Name: -Home Directory: <alue -home="" -val<="" -value="" -value:="" deserving="" drive:="" home="" name:="" not="" path:="" profile="" script="" set?="" th="" united="" volkstations:=""></alue>
>	6/21/23 5:34:31.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator Settings	A user's local group membership was enumerated. Subject: Security ID: S-15-21-2020954294-3820947412-549806118-00 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2827855 User: Security ID: 5-15-21-2020954294-3820947412-58906181-005 Account Name: Settings Account Domain: ACCOUNTING1 Process Information: Process ID: 0x1780 Process Name: C:\Windows\System32\mm.exe
>	6/21/23 5:34:30.000 PM	ACCOUNTING	WinEventLog:Security	WinEventLog:Security	Administrator Settings	A user account was changed. Subject: Security ID: S-15-21-2020954294-3820947412-549806118-500 Account Name: Administrator Account Domain: ACCOUNTINGT Logon ID: 0x:2573855 Target Account: Security ID: S-15-21-2020954294-3820947412-549806118-1006 Account Name: Settings ID: Account Domain: ACCOUNTINGT Changed Attributes: SAM Account Name: Settings Display Name: Settings User Principal Name: -Home Directory: «value not set» Home Drive: «value not set» Script Patti: «value not set» Profile Patti: «value not set» Directory: Workstations: «value not set» Password Last Set 6/21/2023 33:30.2 PM Account Expires: -never» Primary Group ID: 513 AllowedToDelegateTo: -Old UAC Value: 0x10 New UAC Value: 0x10 User Account Control: - User Parameters: «value changed, but not displayed» SID History: - Logon Hours: All Additional Information: Privileges:
>	6/21/23 5:34:30.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog-Security	Administrator Settings	A user's local group membership was enumerated. Subject: Security ID: \$4.52.12020954294.38200947412. 54980618-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 User: Security ID: 545-212020954294-3820947412-54980618-1006 Account Name: Settings Account Domain: ACCOUNTING1 Process Information: Process ID: 0x1780 Process Name: C:WindowsiSystem32/immc.exe
>	6/21/23 5:37:34.000 PM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator Settings	An attempt was made to reset an account's password. Subject: Security ID: S-1-5-21-2020954294-3820947412- 549806118-500 Account Name: Administrator Account Domain: ACCOUNTING'I Logon ID: 0x2E37855 Target Account: Security ID: S-1-5-21-2020954294-3820947412-549806118-1006 Account Name: Settings Account Domain: ACCOUNTING'I
>	6/21/23 5:37:34,000 PM	ACCOUNTING	WinEventLog:Security	WinEventLog:Security	Administrator Settings	A user account was changed. Subject: Security ID: S-1-5-21-2020954:294-382:0947412-549806118-500 Account. Name: Administrator Account Domain: ACCOUNTING! Logon ID: 0x:2877855 Target Account: Security ID: S-1-5-21-2020954294-382:0947412-549806118-1006 Account Name: Settings ID: Account Domain: ACCOUNTING Changed Attributes: SAM Account Name: Settings Display Name: Settings User Principal Name: -Home Directory: value not set S-tigs Patt: value not set Potile Patt: value not set

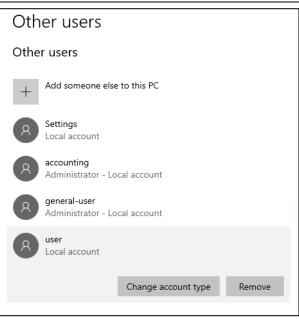
22 June 2023

ACCOUNTING1 Investigation

Credentials were read (04:46 CT)

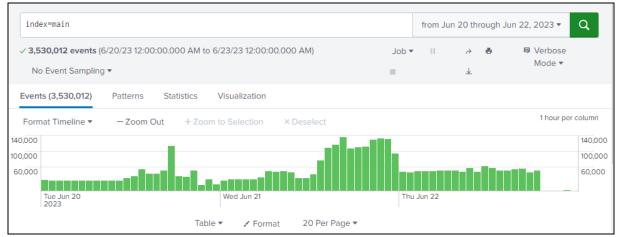
						Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-15-21-2020954294-3820947412-54980618- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806f18- 1004 Account Name: user Account Domain: ACCOUNTINGI Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806f18- 1004 Account Name: user Account Domain: ACCOUNTINGI Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 1004 Account Name: user Account Domain: ACCOUNTINGI Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806f18- 1004 Account Name: user Account Domain: ACCOUNTING! Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 1004 Account Name: user Account Domain: ACCOUNTING! Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
^	6/22/23 4:46:30.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 1004 Account Name: user Account Domain: ACCOUNTINGI Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.

>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	ACCOUNTING1\$	Credential Manager credentials were read. Subject: Security ID: S-1-5-18 Account Name: ACCOUNTINGI\$ Account Domain: WORKGROUP Logon ID: 0x3E7 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-15-21-2020954294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-15-21-2020954294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentia
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954/294-3820947412-549806118- 1004 Account Name: user Account Domain: ACCOUNTING! Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	user	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954/294-3820947412-549806118- 1004 Account Name: user Account Domain: ACCOUNTING! Logon ID: 0x20527 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
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>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954294-3820947412-549806118-500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.
>	6/22/23 9:25:43.000 AM	ACCOUNTING1	WinEventLog:Security	WinEventLog:Security	Administrator	Credential Manager credentials were read. Subject: Security ID: S-1-5-21-2020954/294-3820947412-549806118- 500 Account Name: Administrator Account Domain: ACCOUNTING1 Logon ID: 0x2E37855 Read Operation: Enumerate Credentials This event occurs when a user performs a read operation on stored credentials in Credential Manager.



Analysis

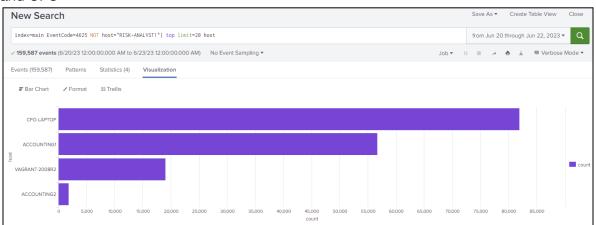
All the logs from June 20 - June 22



Visual Representation of the brute force attack on Accounting1, Accounting2, Metasploitable3, and CFO



Bar graph on the same the brute force attack on Accounting1, Accounting2, Metasploitable3, and CFO



Description

On June 20, 2023, there were several notable activities recorded in the system logs. At 16:58 - 17:38 CT, the server Accounting1 (IP: 10.0.0.126) experienced a concerning number of failed login attempts, reaching a total of 53,460. At 17:21:31, an account managed to successfully log in. Similarly, Accounting2 (IP: 10.0.0.197) encountered 493 failed attempts from 12:52 to 13:00, at 12:52:16, the first successful login occurred. Another server named Vagrant/Metasploitable3 (IP: 10.0.0.82) faced 19,080 failed attempts between 11:50 and 16:10, with the first successful login taking place at 16:08:55.

Moving to June 22, 2023, the CFO server (IP: 10.0.0.206) encountered 81,972 failed login attempts from 09:56 to 23:59. There have been no successful logins recorded.

These events indicate a high level of suspicious activity, with numerous failed login attempts on various servers. It is crucial to investigate the source and nature of these attempts to ensure the security of the systems and prevent any unauthorized access.

Summary

20 June 2023

Accounting1 (10.0.0.126) $16:58 - 17:38 \text{ CT} \rightarrow 53,460 \text{ failed attempts}$ $17:21:31 \rightarrow \text{first successful login}$ Accounting2 (10.0.0.197) $12:52 - 13:00 \rightarrow 493 \text{ failed attempts}$ $12:52:16 \rightarrow \text{first Successful login}$ VAGRANT/Metasploitable3 (10.0.0.82) $11:50 - 16:10 \rightarrow 19,080 \text{ failed attempts}$ $16:08:55 \rightarrow \text{first successful login}$ 22 June 2023

CFO (10.0.0.206) $09:56 - 10:46 \rightarrow 81,972 \text{ failed attempts}$

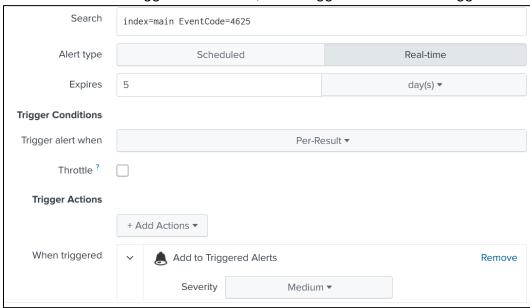
As of June 22, 2023 there have been no successful logins.

Detection Implementation

Implemented 20 JUN 23

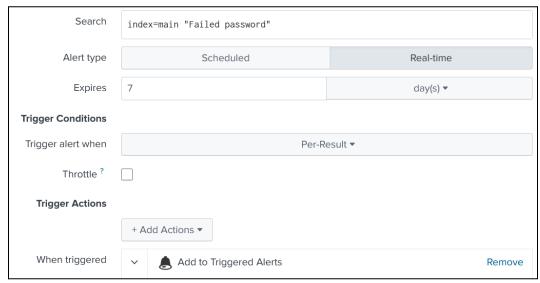
Failed Windows Logon Attempts (Splunk Triggered Alert)

EventCode of 4625 triggers in real time, when triggered is added to triggered alerts



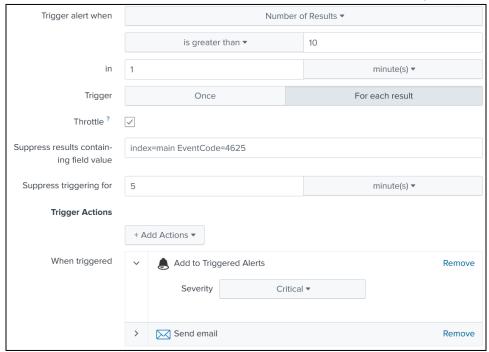
SSH Attempt - Failed Password (Splunk Triggered Alert)

 String "Failed password" triggers in real time, when triggered is added to triggered alerts



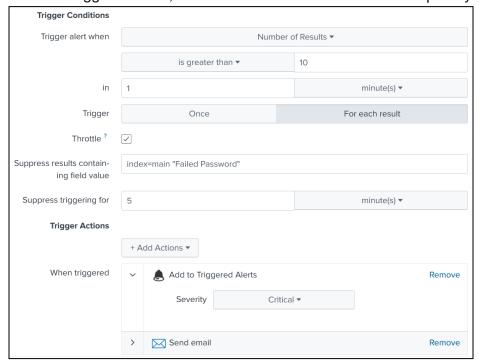
Windows Brute Force Attack (Splunk Triggered Alert)

- EventCode of 4625 triggers in real time, ten triggers in one minute launches alert
- Added to triggered alerts, email is also sent to admin with HIGH priority



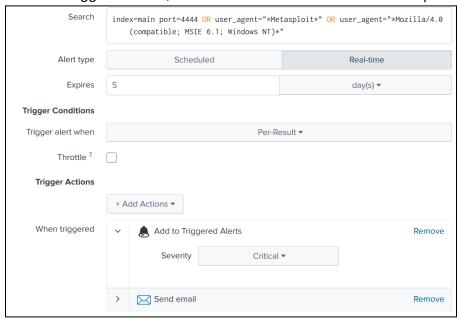
SSH Brute Force Attack (Splunk Triggered Alert)

- String "Failed password" triggers in real time, ten triggers in one minute launches alert
- Added to triggered alerts, email is also sent to admin with HIGH priority.



Metasploit Signature Identified (Splunk Triggered Alert)

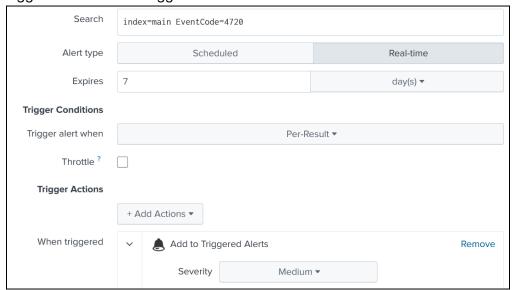
- Entry with either port 4444 (default msf port), user agent containing the string "Metasploit", or user agent containing the string "Mozilla/4.0 (compatible; MSIE 6.1; Windows NT)" triggers in real time.
- Added to triggered alerts, email is also sent to admin with HIGH priority.



<u>Implemented 21 JUN 23</u>

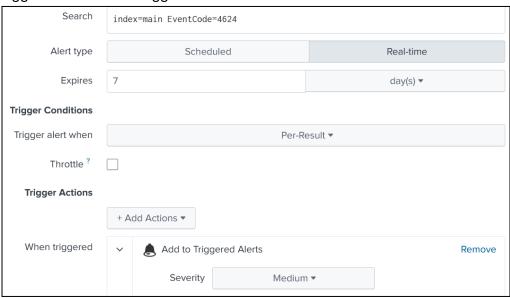
Windows User Created (Splunk Triggered Alert)

 EventCode 4720 indicating a windows user was created triggers in real time, when triggered is added to triggered alerts



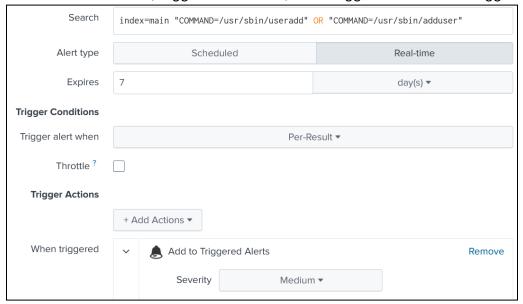
Windows Logon Successful (Splunk Triggered Alert)

• EventCode 4624 indicating a successful windows logon triggers in real time, when triggered is added to triggered alerts



Linux User Created (Splunk Triggered Alert)

• Strings "COMMAND=/usr/sbin/useradd" OR "COMMAND=/usr/sbin/adduser" indicate new linux user created, triggers in real time, when triggered is added to triggered alerts



SSH Login Successful (Splunk Triggered Alert)

• Strings "sshd" "Accepted" and "for" identifies a successful SSH login, triggers in real time, when triggered is added to triggered alerts

