Events Logs Methodology

Tools:

1.) Event Viewer

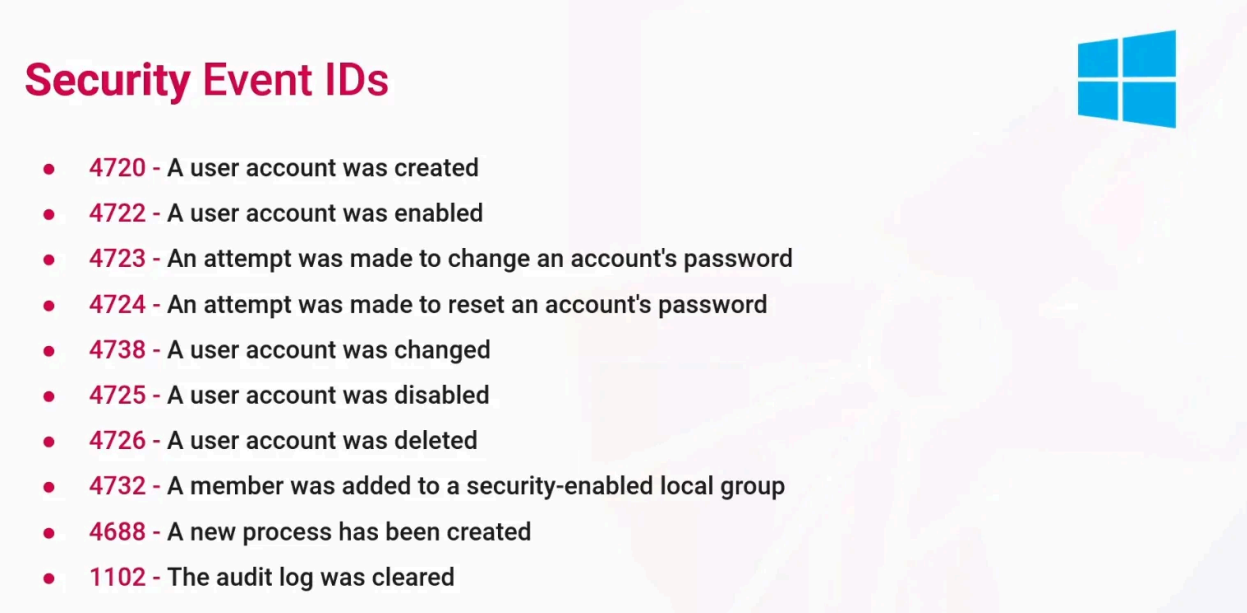
2.) Command Promopt

3.) Power Shell

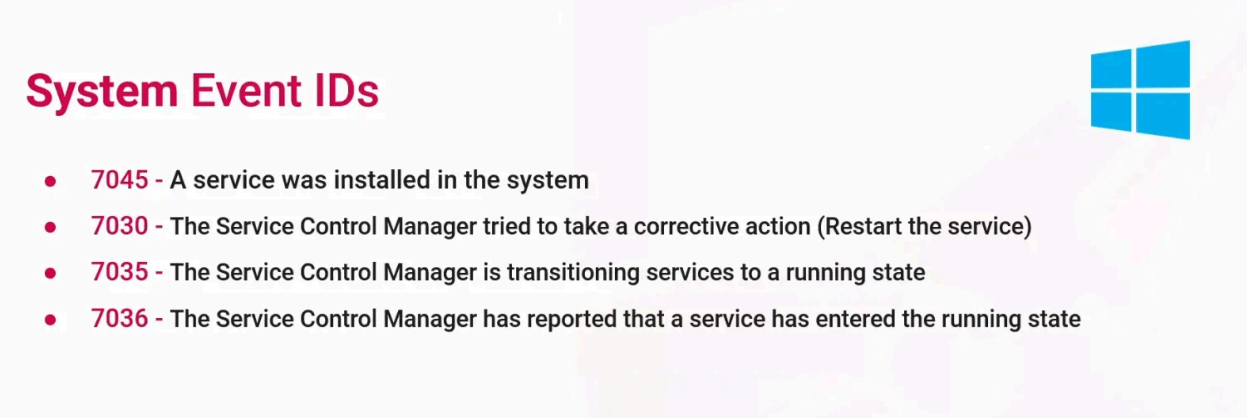
Important Main security and system event IDs:

Security Event IDs

- **4624- A logon**



System Event IDs



Important Questions:

1.) What is the **hostname** of the computer that generated the logs in the `challenge.evtx` file?

2.) What is the **Process ID (PID)** of the execution process that cleared the security event log?

3.) How many **logon events** are recorded in the logs?

4.) In **chronological order**, list the names of the accounts that were created within the logs.

5.) Which user account was
disabled according to the event logs?

6.) Which user account was
deleted according to the event logs?

7.) In chronological order, list the
security-enabled local groups that the **backdoor** user account was added to

8.) Which user account was added to the
Backup Operators group?

Important Cmds:

CMD.exe

Live Security Event analysis cmd via cmd.exe:

Security Event Cmd.exe

```
 $  powershell -NoProfile -Command "Get-WinEvent -FilterHashtable
@{LogName='Security'; ID=4720,4722,4723,4724,4738,4725,4726,4732,4688,1102} |
Format-List *"
```

```
$ powershell -NoProfile -Command "Get-WinEvent -FilterHashtable
@{LogName='Security'; ID=4720,4722,4723,4724,4738,4725,4726,4732,4688,1102} |
Format-List * | Out-File -Encoding utf8 'C:\\Users\\soc\\Desktop\\SecurityEvents.txt'"
```

Security Logs output file analysis cmd via cmd.exe:

```
$  powershell -NoProfile -Command "Get-WinEvent -Path
'C:\\Users\\soc\\Desktop\\03_Endpoint_Security\\Windows\\Challenges\\challenge.evtx'
| Where-Object { $_.Id -in 4720,4722,4723,4724,4738,4725,4726,4732,4688,1102 } |
Format-List *"
```

```
$ powershell -NoProfile -Command "Get-WinEvent -Path
'C:\\Users\\soc\\Desktop\\03_Endpoint_Security\\Windows\\Challenges\\challenge.evtx'
```

| Where-Object { $_.Id -in 4720,4722,4723,4724,4738,4725,4726,4732,4688,1102 } | Format-List * | Out-File -Encoding utf8 'C:\\Users\\soc\\Desktop\\FilteredEvents.txt'"

Live system event analysis cmd via cmd.exe :

System Event Cmd.exe

$ powershell -NoProfile -Command "Get-WinEvent -FilterHashtable @{LogName='Security'; ID= 7045,7030,7035,7036 } | Format-List *"

$ powershell -NoProfile -Command "Get-WinEvent -FilterHashtable @{LogName='Security'; ID=7045,7030,7035,7036} | Format-List * | Out-File -Encoding utf8 'C:\\Users\\soc\\Desktop\\SecurityEvents.txt'"

Systems Log output file analysis cmd via cmd.exe:

$ powershell -NoProfile -Command "Get-WinEvent -Path 'C:\\Users\\soc\\Desktop\\03_Endpoint_Security\\Windows\\Challenges\\challenge.evtx' | Where-Object { $_.Id -in 7045,7030,7035,7036 } | Format-List *"

$ powershell -NoProfile -Command "Get-WinEvent -Path 'C:\\Users\\soc\\Desktop\\03_Endpoint_Security\\Windows\\Challenges\\challenge.evtx' | Where-Object { $_.Id -in 7045,7030,7035,7036 } | Format-List * | Out-File -Encoding utf8 'C:\\Users\\soc\\Desktop\\FilteredEvents.txt'"

Powershell.exe

Live security event analysis cmd via powershell:

security event PowerShell

$ **Get-WinEvent -FilterHashtable @{LogName="Security"; ID=4720,4722,4723,4724,4738,4725,4726,4732,4688,1102} | Format-List ***

$ Get-WinEvent -FilterHashtable @{LogName="Security"; ID=4720,4722,4723,4724,4738,4725,4726,4732,4688,1102} | Format-List * | Out-File -Encoding utf8 "C:\Users\soc\Desktop\SecurityEvents.txt" ⇒ (Use real analysis case)

Live system event analysis cmd via powershell:

System event PowerShell

$ Get-WinEvent -FilterHashtable @{LogName="System"; ID=7045,7030,7035,7036} | Format-List *

$ Get-WinEvent -FilterHashtable @{LogName="System"; ID=7045,7030,7035,7036} | Format-List * | Out-File -Encoding utf8 "C:\Users\soc\Desktop\SecurityEvents.txt"

Live system event analysis cmd via PowerShell:

Security event PowerShell

```
$Get-WinEvent -Path
"C:\Users\soc\Desktop\03_Endpoint_Security\Windows\Challenges\challenge.evtx" |
Where-Object { $_.Id -in 4720,4722,4723,4724,4738,4725,4726,4732,4688,1102 } |
Format-List *
```

```
$ Get-WinEvent -Path
"C:\Users\soc\Desktop\03_Endpoint_Security\Windows\Challenges\challenge.evtx" |
Where-Object { $_.Id -in 4720,4722,4723,4724,4738,4725,4726,4732,4688,1102 } |
Format-List * | Out-File "C:\Users\soc\Desktop\FilteredEvents.txt" -Encoding utf8
```

Security event Log output file analysis cmd via powershell:

System event PowerShell

```
$ Get-WinEvent -Path
"C:\Users\soc\Desktop\03_Endpoint_Security\Windows\Challenges\challenge.evtx" |
Where-Object { $_.Id -in 7045,7030,7035,7036 } | Format-List *
```

```
$ Get-WinEvent -Path
"C:\Users\soc\Desktop\03_Endpoint_Security\Windows\Challenges\challenge.evtx" |
Where-Object { $_.Id -in 7045,7030,7035,7036 } | Format-List * | Out-File
"C:\Users\soc\Desktop\FilteredEvents.txt" -Encoding utf8
```

Valid key-value pairs:

Key Name	Value Data	Wildcard?
LogName	<String>	Yes
ProviderName	<String>	Yes
Path	<String>	No
Keywords	<Long>	No
ID	<Int32>	No
Level	<Int32>	No
StartTime	<DateTime>	No
EndTime	<DateTime>	No
UserID	<SID>	No
Data	<String>	No