KVMX

Evidence-First Malware Analysis

Analysis Report: urlhaus_e501db75a2f2.exe

Verdict: LIKELY-MALICIOUS

Verdict: likely-malicious; 295 anti-VM checks (mixed)

Analysis Overview

Score: 7/10

Threat level: Likely malicious

Malicious Activity Summary

- T1497.001
- T1071.001
- T1105
- Process Injection
- Process Injection: Dynamic-link Library Injection
- Input Capture: Keylogging
- Process Discovery
- Indicator Removal: File Deletion
- System Information Discovery
- Shared Modules
- Access Token Manipulation
- Hijack Execution Flow: DLL Side-Loading
- Debugger Evasion
- Scheduled Task/Job: Scheduled Task
- Boot or Logon Autostart Execution: Registry Run Keys

Hashes

SHA-256:	e501db75a2f2f1eef0ffc127aab8db36f58e93047b2258a0c0edaa9323f8c092
SHA-1:	cec76e295824c20d0740ac8ffbf981584e91c2db
MD5:	b9c480dc071797bc9e9f5dbf01fa4c58
Size:	671,384 bytes

Packer Detection

No packer detected.

PE Information

Architecture:	64-bit
Type:	Executable
Entry Point:	0x76C0

Sections: 7

Name	Virtual Size	Entropy
.text	0x1A1B1	6.55
.rdata	0xCF46	5.1
.data	0x1AEA8	1.94
.pdata	0x14A0	5.12
.fptable	0x100	0.0
.rsrc	0x76CEC	7.98
.reloc	0x664	4.89

Imports

KERNEL32.dll

- TerminateProcess
- CreateThread
- GetCurrentThreadId
- OpenThread
- FlushInstructionCache
- GetTickCount
- VirtualAlloc
- VirtualProtect
- VirtualFree
- GetModuleHandleA

USER32.dll

- DispatchMessageW
- GetSystemMetrics
- GetCursorPos
- wsprintfA
- MsgWaitForMultipleObjectsEx
- PeekMessageW
- TranslateMessage
- MessageBoxW
- wsprintfW
- GetAsyncKeyState

ADVAPI32.dll

- RegCloseKey
- GetTokenInformation
- OpenProcessToken
- RegQueryInfoKeyW
- RegOpenKeyExW
- GetUserNameW

COMCTL32.dll

- InitCommonControlsEx

SHLWAPI.dll

- PathFileExistsW
- StrCmpIW

UxTheme.dll

- IsAppThemed
- IsThemeActive

USERENV.dll

GetUserProfileDirectoryW

ole32.dll

CoInitializeEx

CoUninitialize

VERSION.dll

GetFileVersionInfoSizeW

Strings (200 found)

```
1#ht
`fVC
/U3W4 01qy4
o[qFS-H4VC
Rich
.text
`.rdata
@.data
.pdata
@.fptable
.rsrc
@.reloc
L$ L
SVWATAUAVAWH
D$8ole3
D$<2.dlf
D$@l
D$HH
\$ M
\$LE2
D$`H
D$tH
D$23
d$3L
L$LD
|$03
d$3H
|$1E3
D$`H
D$tH
|$03
 tyD
|$03
|$1H
A_A^A]A\_^[
\$0H
t$8H
sssss
I*Ai
sssss
|$ f
|$ fA
|l3s
D$8H
D$(H
```

```
\$ A
"r?L
\$`H
t$hH
|$pH
```
... and 150 more

Malware Config

Indicators of Compromise (9)

URLs (2)

```
https://telegram.me/j0tt0s
https://steamcommunity.com/profiles/76561198660175584
```

Domains (7)

```
telegram.me
steamcommunity.com
aware-cr1.com
assets.msn.com
www.bing.com
config.edge.skype.com
edge-consumer-static.azureedge.net
```

MITRE ATT&CK (15)

Technique	Name	Tactic	Source
T1497.001			detonation-evidence
T1071.001			detonation-evidence
T1105			detonation-evidence
T1055	Process Injection	Defense Evasion	
T1055.001	Process Injection: Dynamic-link	Defense Evasion	
T1056.001	Input Capture: Keylogging	Credential Access	
T1057	Process Discovery	Discovery	
T1070.004	Indicator Removal: File Deletion	Defense Evasion	
T1082	System Information Discovery	Discovery	
T1129	Shared Modules	Execution	
T1134	Access Token Manipulation	Privilege Escalation	
T1574.002	Hijack Execution Flow: DLL Side-	Privilege Escalation	
T1622	Debugger Evasion	Defense Evasion	
T1053.005	Scheduled Task/Job: Scheduled Ta	Persistence	behavioral_inference
T1547.001	Boot or Logon Autostart Executio	Persistence	behavioral_inference

Dynamic Detonation

Coverage: ran

Behavior: malicious-behavior

Threat score: 70/100 (high)

Factors: c2, attack_techniques

Network Connections (8)

Destination	Domain	Proto
10.0.2.3:80		tcp
10.0.2.3:443		tcp
10.0.2.3:53		udp
10.0.2.255:138		udp
255.255.255.255:67		udp
10.0.2.255:137		udp
224.0.0.252:5355		udp
224.0.0.251:5353		udp

TLS Handshake Failures (cert-pinning) (50)

```
assets.msn.com  (tlsstate: deadline exceeded)
www.bing.com  (tlsstate: deadline exceeded)
www.bing.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
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assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
```

Behavioral Timeline (100)

1. [conn] pid 0: udp 255.255.255.255:67
2. [conn] pid 0: udp 224.0.0.251:5353
3. [conn] pid 0: udp 224.0.0.252:5355
4. [conn] pid 0: udp 10.0.2.3:53
5. [dns] pid 0: DNS 1 www.msftconnecttest.com -> 10.0.2.3
6. [conn] pid 0: tcp 10.0.2.3:80
7. [conn] pid 0: udp 10.0.2.255:137
8. [conn] pid 0: tcp 10.0.2.3:80
9. [conn] pid 0: tcp 10.0.2.3:80
10. [conn] pid 0: udp 10.0.2.3:53
11. [dns] pid 0: DNS 1 aware-cr1.com -> 10.0.2.3
12. [conn] pid 0: tcp 10.0.2.3:443
13. [conn] pid 0: udp 10.0.2.3:53
14. [dns] pid 0: DNS 1 ctldl.windowsupdate.com -> 10.0.2.3
15. [conn] pid 0: tcp 10.0.2.3:80
16. [conn] pid 0: tcp 10.0.2.3:80
17. [conn] pid 0: udp 10.0.2.3:53
18. [dns] pid 0: DNS 1 assets.msn.com -> 10.0.2.3
19. [conn] pid 0: tcp 10.0.2.3:443

20. [conn] pid 0: tcp 10.0.2.3:443
21. [conn] pid 0: tcp 10.0.2.3:80
22. [conn] pid 0: tcp 10.0.2.3:80
23. [conn] pid 0: tcp 10.0.2.3:80
24. [conn] pid 0: tcp 10.0.2.3:80
25. [conn] pid 0: tcp 10.0.2.3:80

...and 75 more events

Packet capture: available (full PCAP)

Persistence (1)

[Startup folder] malray.bat -> /ProgramData/Microsoft/Windows/Start Menu/Programs/Startup/malray.bat

Spawned Processes (50)

System
Registry
svchost.exe - C:\Windows\system32\svchost.exe -k DcomLaunch -p
fontdrvhost.ex - "fontdrvhost.exe"
smss.exe - \SystemRoot\System32\smss.exe
RuntimeBroker. - C:\Windows\System32\RuntimeBroker.exe -Embedding
SearchApp.exe - "C:\Windows\SystemApps\Microsoft.Windows.Search_cw5n1h2txyewy\SearchApp.exe" -ServerName:CortanaUI.A
StartMenuExper - "C:\Windows\SystemApps\Microsoft.Windows.StartMenuExperienceHost_cw5n1h2txyewy\StartMenuExperienceH
svchost.exe - C:\Windows\system32\svchost.exe -k appmodel -p -s camsvc
svchost.exe - C:\Windows\system32\svchost.exe -k LocalSystemNetworkRestricted -p -s PcaSvc
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --single-argument http://www.msftconnect
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=crashpad-handler "--user-data-dir
mobsync.exe - C:\Windows\System32\mobsync.exe -Embedding
urlhaus_e501db - svchost.exe
netsh.exe - netsh advfirewall set allprofiles state off
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=gpu-process --gpu-preferences=SAA
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=renderer --pdf-upsell-enabled --v
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=renderer --pdf-upsell-enabled --v
conhost.exe - \??\C:\Windows\system32\conhost.exe 0x4
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=utility --utility-sub-type=storag
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=utility --utility-sub-type=networ
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --type=utility --utility-sub-type=entity
schtasks.exe - schtasks.exe /create /tn "SecurityHealthService" /xml "C:\Users\MATT~1.JOH\AppData\Local\Temp\~st0000
cmd.exe - C:\Windows\system32\cmd.exe /c ""C:\ProgramData\Microsoft\Windows\Start Menu\Programs\StartUp\fire_loader.
taskhostw.exe - taskhostw.exe $(Arg0)
taskhostw.exe - taskhostw.exe SyncFromCloud
UserOOBEBroker - C:\Windows\System32\oobe\UserOOBEBroker.exe -Embedding
svchost.exe - C:\Windows\System32\svchost.exe -k netsvcs -p -s BDESVC
msedge.exe - "C:\Program Files (x86)\Microsoft\Edge\Application\msedge.exe" --no-startup-window --win-session-start
schtasks.exe - schtasks.exe /create /tn "WindowsSecurityHealth" /xml "C:\Users\MATT~1.JOH\AppData\Local\Temp\~st0000

...and 20 more