KVMX

Evidence-First Malware Analysis

Analysis Report: urlhaus_94bff010123a.exe

Verdict: LIKELY-MALICIOUS

Verdict: likely-malicious; 41 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
- Boot or Logon Autostart Execution: Registry Run Keys

Hashes

SHA-256:	94bff010123a54c1435a63862e802c6a59d821be7d5ee0898f30b7dd83cef5b8
SHA-1:	a1605dc7169628f3702e48aee20894d3de773487
MD5:	6121ab3a7d1449f24971bd16dd854126
Size:	640,000 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	0x721D4	7.99
.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)

```
GG4b
Rich
"I+Q
.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$8H
|l7ss
I*Ai
|l3s|l7ss
|l3sH
|$ f
|$ fA
D$8H
D$(H
\$ A
"r?L
\$`H
t$hH
```

`|$pH`

`|ls@SH`

`ssss|l7ss`

... and 150 more

Malware Config

C2 / Network (4)

Endpoint	Source
`api.msn.com`	decrypted_c2
`assets.msn.com`	decrypted_c2
`login.live.com`	decrypted_c2
`www.bing.com`	decrypted_c2

Indicators of Compromise (12)

URLs (3)

`https://telegram.me/s11yme`

`https://dev.epicgames.com/community/api/user_profiles/profile.json`

`https://steamcommunity.com/profiles/76561198652917381`

Domains (9)

`telegram.me`

`dev.epicgames.com`

`steamcommunity.com`

`assets.msn.com`

`api.msn.com`

`www.bing.com`

`aware-cr1.com`

`config.edge.skype.com`

`edge-consumer-static.azureedge.net`

MITRE ATT&CK (14)

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	
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
10.0.2.255:137		udp
224.0.0.251:5353		udp
255.255.255.255:67		udp
10.0.2.255:138		udp
224.0.0.252:5355		udp

TLS Handshake Failures (cert-pinning) (50)

```
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)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.com  (tlsstate: deadline exceeded)
assets.msn.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)
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. [http] pid 0: GET http://www.msftconnecttest.com/connecttest.txt
 8. [conn] pid 0: udp 10.0.2.255:137
 9. [conn] pid 0: tcp 10.0.2.3:80
10. [http] pid 0: GET http://www.msftconnecttest.com/connecttest.txt
11. [conn] pid 0: tcp 10.0.2.3:80
12. [http] pid 0: GET http://www.msftconnecttest.com/connecttest.txt
```

13. [conn] pid 0: udp 10.0.2.3:53
14. [dns] pid 0: DNS 1 aware-cr1.com -> 10.0.2.3
15. [conn] pid 0: tcp 10.0.2.3:443
16. [conn] pid 0: udp 10.0.2.3:53
17. [dns] pid 0: DNS 1 ctldl.windowsupdate.com -> 10.0.2.3
18. [conn] pid 0: tcp 10.0.2.3:80
19. [http] pid 0: GET http://ctldl.windowsupdate.com/msdownload/update/v3/static/trustedr/en/authrootstl.cab
20. [conn] pid 0: tcp 10.0.2.3:80
21. [http] pid 0: GET http://ctldl.windowsupdate.com/msdownload/update/v3/static/trustedr/en/authrootstl.cab
22. [conn] pid 0: udp 10.0.2.3:53
23. [dns] pid 0: DNS 1 assets.msn.com -> 10.0.2.3
24. [conn] pid 0: tcp 10.0.2.3:443
25. [conn] pid 0: tcp 10.0.2.3:443

...and 75 more events

Packet capture: available (full PCAP)

Persistence (1)

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