

JOESandbox Cloud BASIC



ID: 492126

Sample Name: sb.exe

Cookbook: default.jbs

Time: 11:48:03

Date: 28/09/2021

Version: 33.0.0 White Diamond

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Windows Analysis Report sb.exe

Overview

General Information

| | |
|------------------------------|---------------------|
| Sample Name: | sb.exe |
| Analysis ID: | 492126 |
| MD5: | e310cb3185d95e.. |
| SHA1: | c20c8aa953f7df7.. |
| SHA256: | 82867648313483.. |
| Tags: | arostetelemacca exe |
| Infos: | |
| Most interesting Screenshot: | |

Detection

MALICIOUS

SUSPICIOUS

CLEAN

UNKNOWN

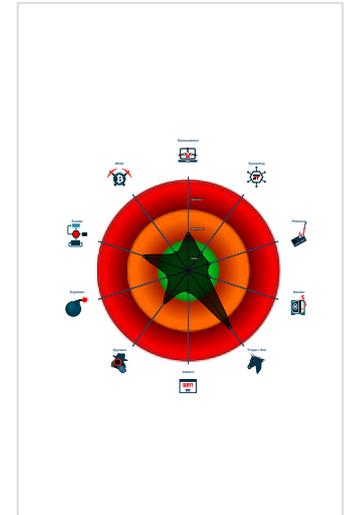
AveMaria

| | |
|--------------|---------|
| Score: | 60 |
| Range: | 0 - 100 |
| Whitelisted: | false |
| Confidence: | 100% |

Signatures

- Found malware configuration
- Multi AV Scanner detection for subm...
- Malicious sample detected (through ...
- Yara detected AveMaria stealer
- C2 URLs / IPs found in malware con...
- Contains functionality to hide user a...
- Uses 32bit PE files
- Yara signature match
- Antivirus or Machine Learning detec...
- Installs a raw input device (often for ...
- Contains functionality to check if a d...
- Contains functionality to read the PEB

Classification



Process Tree

- System is w10x64
- sb.exe (PID: 6404 cmdline: 'C:\Users\user\Desktop\sb.exe' MD5: E310CB3185D95E3DDA42F0230B569D84)
 - conhost.exe (PID: 6408 cmdline: C:\Windows\system32\conhost.exe 0xffffffff -ForceV1 MD5: EA777DEEA782E8B4D7C7C33BBF8A4496)
- cleanup

Malware Configuration

Threatname: AveMaria

```
{  
  "C2 url": "cachepallioniwarzna.icu",  
  "port": 5200  
}
```

Yara Overview

Memory Dumps

| Source | Rule | Description | Author | Strings |
|---------------------------------------------------------------------|-------------------------------|----------------------------------|--------------|---------|
| 00000000.00000002.374825576.00000000031F6000.00000002.00000001.sdmp | JoeSecurity_CredentialStealer | Yara detected Credential Stealer | Joe Security | |
| 00000000.00000002.374825576.00000000031F6000.00000002.00000001.sdmp | JoeSecurity_AveMaria | Yara detected AveMaria stealer | Joe Security | |
| 00000000.00000002.374727716.00000000027E0000.00000040.00000001.sdmp | JoeSecurity_CredentialStealer | Yara detected Credential Stealer | Joe Security | |
| 00000000.00000002.374727716.00000000027E0000.00000040.00000001.sdmp | JoeSecurity_AveMaria | Yara detected AveMaria stealer | Joe Security | |
| Process Memory Space: sb.exe PID: 6404 | JoeSecurity_CredentialStealer | Yara detected Credential Stealer | Joe Security | |

Unpacked PEs

| Source | Rule | Description | Author | Strings |
|---------------------------------|-------------------------------|--------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.2.sb.exe.27e053f.1.raw.unpack | MAL_Envrial_Jan18_1 | Detects Encrial credential stealer malware | Florian Roth | <ul style="list-style-type: none"> 0x16478:\$a1: \Opera Software\Opera Stable\Login Data 0x167a0:\$a2: \Comodo\Dragon\User Data\Default\Login Data 0x160e8:\$a3: \Google\Chrome\User Data\Default\Login Data |
| 0.2.sb.exe.27e053f.1.raw.unpack | JoeSecurity_CredentialStealer | Yara detected Credential Stealer | Joe Security | |
| 0.2.sb.exe.27e053f.1.raw.unpack | JoeSecurity_AveMaria | Yara detected AveMaria stealer | Joe Security | |
| 0.2.sb.exe.27e053f.1.raw.unpack | AveMaria_WarZone | unknown | unknown | <ul style="list-style-type: none"> 0x18520:\$str1: cmd.exe /C ping 1.2.3.4 -n 2 -w 1000 > Nul & Del ff /q 0x18274:\$str2: MsgBox.exe 0x18148:\$str6: Ave_Maria 0x177e8:\$str7: SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon\SpecialAccounts\UserList 0x16e08:\$str8: SMTP Password 0x160e8:\$str11: \Google\Chrome\User Data\Default\Login Data 0x177c0:\$str12: \sqlmap.dll |
| 0.2.sb.exe.27e053f.1.unpack | MAL_Envrial_Jan18_1 | Detects Encrial credential stealer malware | Florian Roth | <ul style="list-style-type: none"> 0x15878:\$a1: \Opera Software\Opera Stable\Login Data 0x15ba0:\$a2: \Comodo\Dragon\User Data\Default\Login Data 0x154e8:\$a3: \Google\Chrome\User Data\Default\Login Data |

Click to see the 7 entries

Sigma Overview

No Sigma rule has matched

Jbx Signature Overview

 Click to jump to signature section

AV Detection:



Found malware configuration

Multi AV Scanner detection for submitted file

Yara detected AveMaria stealer

Networking:



C2 URLs / IPs found in malware configuration

E-Banking Fraud:



Yara detected AveMaria stealer

System Summary:



Malicious sample detected (through community Yara rule)

Hooking and other Techniques for Hiding and Protection:



Contains functionality to hide user accounts

Stealing of Sensitive Information:



Yara detected AveMaria stealer

Remote Access Functionality:

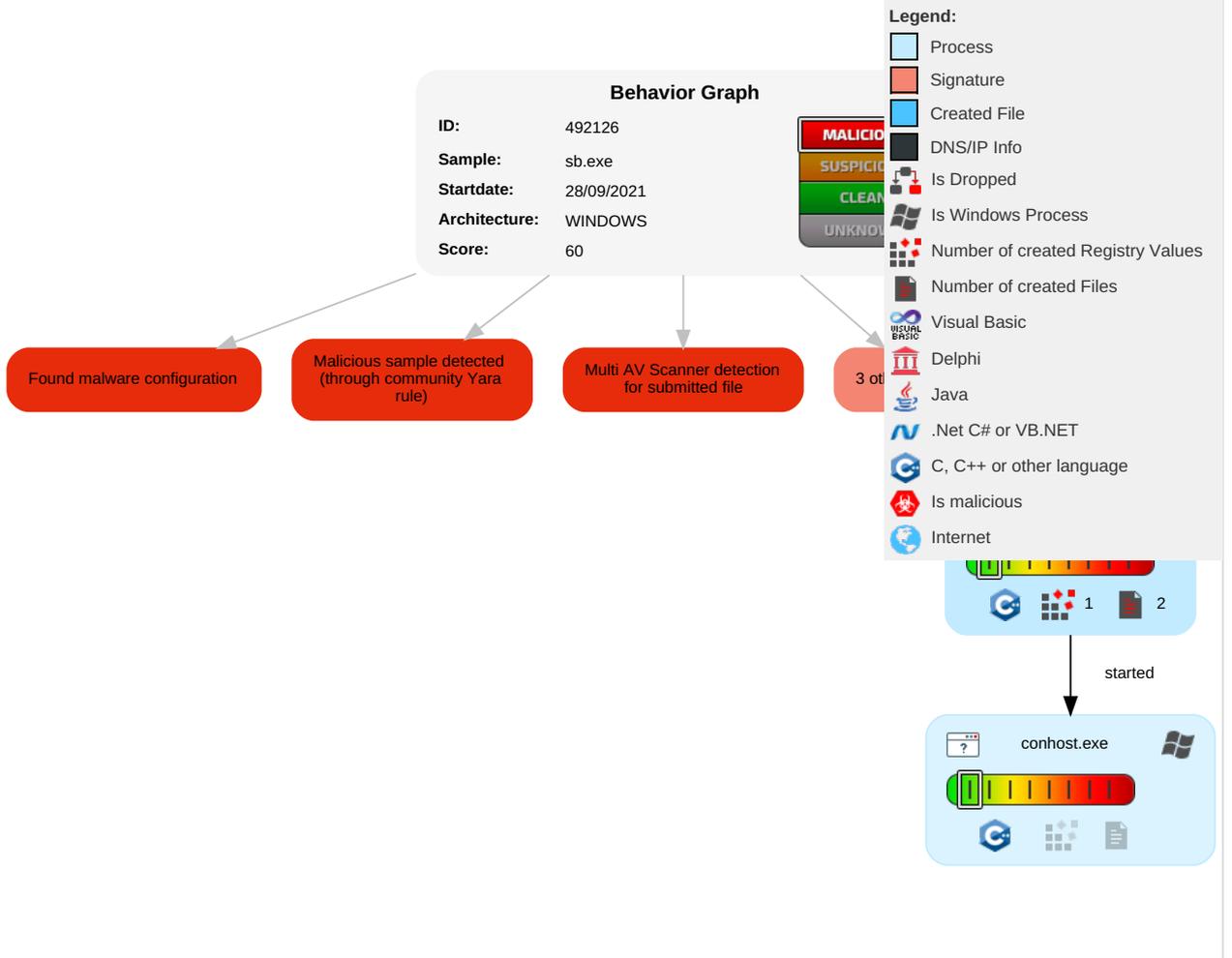


Yara detected AveMaria stealer

Mitre Att&ck Matrix

| Initial Access | Execution | Persistence | Privilege Escalation | Defense Evasion | Credential Access | Discovery | Lateral Movement | Collection | Exfiltration | Command and Control | Network Effects |
|-------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------------|------------------------------|------------------------------------------|
| Valid Accounts | Windows Management Instrumentation | Path Interception | Process Injection 1 | Masquerading 2 | Input Capture 2 1 | System Time Discovery 1 | Remote Services | Input Capture 2 1 | Exfiltration Over Other Network Medium | Encrypted Channel 1 | Eavesdrop Insecure Network Communication |
| Default Accounts | Scheduled Task/Job | Boot or Logon Initialization Scripts | Boot or Logon Initialization Scripts | Virtualization/Sandbox Evasion 1 | LSASS Memory | Security Software Discovery 2 | Remote Desktop Protocol | Archive Collected Data 1 | Exfiltration Over Bluetooth | Application Layer Protocol 1 | Exploit SS Redirect F Calls/SMS |
| Domain Accounts | At (Linux) | Logon Script (Windows) | Logon Script (Windows) | Software Packing 1 | Security Account Manager | Virtualization/Sandbox Evasion 1 | SMB/Windows Admin Shares | Data from Network Shared Drive | Automated Exfiltration | Steganography | Exploit SS Track Dev Location |
| Local Accounts | At (Windows) | Logon Script (Mac) | Logon Script (Mac) | Process Injection 1 | NTDS | System Information Discovery 3 | Distributed Component Object Model | Input Capture | Scheduled Transfer | Protocol Impersonation | SIM Card Swap |
| Cloud Accounts | Cron | Network Logon Script | Network Logon Script | Hidden Users 1 | LSA Secrets | Remote System Discovery | SSH | Keylogging | Data Transfer Size Limits | Fallback Channels | Manipulate Device Communication |
| Replication Through Removable Media | Launchd | Rc.common | Rc.common | Obfuscated Files or Information 1 | Cached Domain Credentials | System Owner/User Discovery | VNC | GUI Input Capture | Exfiltration Over C2 Channel | Multiband Communication | Jamming Denial of Service |

Behavior Graph



Screenshots

Thumbnails

This section contains all screenshots as thumbnails, including those not shown in the slideshow.





Antivirus, Machine Learning and Genetic Malware Detection

Initial Sample

| Source | Detection | Scanner | Label | Link |
|--------|-----------|---------------|-----------------------|------------------------|
| sb.exe | 38% | Virustotal | | Browse |
| sb.exe | 42% | ReversingLabs | Win32.Trojan.Streamer | |

Dropped Files

No Antivirus matches

Unpacked PE Files

| Source | Detection | Scanner | Label | Link | Download |
|-----------------------------|-----------|---------|---------------------|------|-------------------------------|
| 0.2.sb.exe.31e0000.3.unpack | 100% | Avira | TR/Downloader.Gen | | Download File |
| 0.2.sb.exe.27e053f.1.unpack | 100% | Avira | TR/Patched.Ren.Gen3 | | Download File |

Domains

No Antivirus matches

URLs

| Source | Detection | Scanner | Label | Link |
|-------------------------|-----------|------------|-------|------------------------|
| cachepallioniarznpa.icu | 0% | Virustotal | | Browse |

| Source | Detection | Scanner | Label | Link |
|--------------------------------------------------------------|-----------|-----------------|-------|------|
| cachevallioniwarznpa.icu | 0% | Avira URL Cloud | safe | |
| http://crt.sectigo.com/SectigoPublicCodeSigningCAR36.crt0# | 0% | URL Reputation | safe | |
| http://https://sectigo.com/CPS0 | 0% | URL Reputation | safe | |
| http://crt.sectigo.com/SectigoPublicCodeSigningRootR46.p7c0# | 0% | URL Reputation | safe | |
| http://crl.sectigo.com/SectigoPublicCodeSigningCAR36.crl0y | 0% | URL Reputation | safe | |
| http://crl.sectigo.com/SectigoPublicCodeSigningRootR46.crl0 | 0% | URL Reputation | safe | |
| http://ocsp.sectigo.com0 | 0% | URL Reputation | safe | |

Domains and IPs

Contacted Domains

No contacted domains info

Contacted URLs

| Name | Malicious | Antivirus Detection | Reputation |
|--------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------|------------|
| cachevallioniwarznpa.icu | true | <ul style="list-style-type: none"> 0%, Virustotal, Browse Avira URL Cloud: safe | unknown |

URLs from Memory and Binaries

Contacted IPs

No contacted IP infos

General Information

| | |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Joe Sandbox Version: | 33.0.0 White Diamond |
| Analysis ID: | 492126 |
| Start date: | 28.09.2021 |
| Start time: | 11:48:03 |
| Joe Sandbox Product: | CloudBasic |
| Overall analysis duration: | 0h 8m 31s |
| Hypervisor based Inspection enabled: | false |
| Report type: | light |
| Sample file name: | sb.exe |
| Cookbook file name: | default.jbs |
| Analysis system description: | Windows 10 64 bit v1803 with Office Professional Plus 2016, Chrome 85, IE 11, Adobe Reader DC 19, Java 8 Update 211 |
| Number of analysed new started processes analysed: | 24 |
| Number of new started drivers analysed: | 0 |
| Number of existing processes analysed: | 0 |
| Number of existing drivers analysed: | 0 |
| Number of injected processes analysed: | 0 |
| Technologies: | <ul style="list-style-type: none"> HCA enabled EGA enabled HDC enabled AMSI enabled |
| Analysis Mode: | default |
| Analysis stop reason: | Timeout |
| Detection: | MAL |
| Classification: | mal60.troj.winEXE@2/0@0/0 |
| EGA Information: | Failed |
| HDC Information: | <ul style="list-style-type: none"> Successful, ratio: 100% (good quality ratio 91.8%) Quality average: 76% Quality standard deviation: 30.9% |
| HCA Information: | Failed |

| | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cookbook Comments: | <ul style="list-style-type: none"> Adjust boot time Enable AMSI Found application associated with file extension: .exe Override analysis time to 240s for sample files taking high CPU consumption |
| Warnings: | Show All |

Simulations

Behavior and APIs

No simulations

Joe Sandbox View / Context

IPs

No context

Domains

No context

ASN

No context

JA3 Fingerprints

No context

Dropped Files

No context

Created / dropped Files

No created / dropped files found

Static File Info

| General | |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| File type: | PE32 executable (console) Intel 80386, for MS Windows |
| Entropy (8bit): | 3.7813426384094133 |
| TrID: | <ul style="list-style-type: none"> Win32 Executable (generic) a (10002005/4) 99.96% Generic Win/DOS Executable (2004/3) 0.02% DOS Executable Generic (2002/1) 0.02% Autodesk FLIC Image File (extensions: flc, flt, cel) (7/3) 0.00% |
| File name: | sb.exe |
| File size: | 1627136 |
| MD5: | e310cb3185d95e3dda42f0230b569d84 |
| SHA1: | c20c8aa953f7df7e9b117258a0d31530e23ffc55 |

| General | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------|
| SHA256: | 82867648313483db4a6115e0cc2b34c06719ffdb6667e5ce625e2dc130adfbca |
| SHA512: | a0c4a70bc09ea2eb36a1a27af65891d866beec07a1c21208e0b05e549d3d2f7619bef9012dab9e121e53a6a1a56df42bf5435520292dd879e30f4db71789bbd |
| SSDEEP: | 12288:EJTG/NEiKx8FAuRg7Q7X/CRLL6/mkHTydNNAF4B0laLpfqFR:EiAuRg7SFwlyFR |
| File Content Preview: | MZ.....@.....!..L!Th is program cannot be run in DOS mode...\$.a.....r...T.....T.+... T.....Rich.....PE..L.. |

File Icon

| | |
|-----------------------------------------------------------------------------------|------------------|
|  | |
| Icon Hash: | 00828e8e8686b000 |

Static PE Info

| General | |
|-----------------------------|------------------------------------------------|
| Entrypoint: | 0x40eb3e |
| Entrypoint Section: | .text |
| Digitally signed: | true |
| Imagebase: | 0x400000 |
| Subsystem: | windows cui |
| Image File Characteristics: | 32BIT_MACHINE, EXECUTABLE_IMAGE |
| DLL Characteristics: | TERMINAL_SERVER_AWARE, DYNAMIC_BASE, NX_COMPAT |
| Time Stamp: | 0x6147C4FD [Sun Sep 19 23:17:17 2021 UTC] |
| TLS Callbacks: | |
| CLR (.Net) Version: | |
| OS Version Major: | 6 |
| OS Version Minor: | 0 |
| File Version Major: | 6 |
| File Version Minor: | 0 |
| Subsystem Version Major: | 6 |
| Subsystem Version Minor: | 0 |
| Import Hash: | 9d3536f958f133fe568939841471fa60 |

Authenticode Signature

| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Signature Valid: | true |
| Signature Issuer: | CN=Sectigo Public Code Signing CA R36, O=Sectigo Limited, C=GB |
| Signature Validation Error: | The operation completed successfully |
| Error Number: | 0 |
| Not Before, Not After | <ul style="list-style-type: none"> 9/7/2021 5:00:00 PM 9/8/2022 4:59:59 PM |
| Subject Chain | <ul style="list-style-type: none"> CN=SAN MARINO INVESTMENTS PTY LTD, O=SAN MARINO INVESTMENTS PTY LTD, S=Victoria, C=AU |
| Version: | 3 |
| Thumbprint MD5: | 5F47B0139E6B49D14882A7ABD4026C5A |
| Thumbprint SHA-1: | D877BC4EA5A61864AA45BCB3F7EBDCD8ACBC5D5D |
| Thumbprint SHA-256: | 72A2371C9873A8CF56E98A6EACB267DEC076593AC0A6917DC10B479F19B9EA6F |
| Serial: | 00D79739187C585E453C00AFC11D77B523 |

Entrypoint Preview

Data Directories

Sections

| Name | Virtual Address | Virtual Size | Raw Size | Xored PE | ZLIB Complexity | File Type | Entropy | Characteristics |
|--------|-----------------|--------------|----------|----------|-----------------|-----------|---------------|---------------------------------------------------------------|
| .text | 0x1000 | 0x4c3fa | 0x4c400 | False | 0.454738729508 | data | 6.61929420007 | IMAGE_SCN_MEM_EXECUTE, IMAGE_SCN_CNT_CODE, IMAGE_SCN_MEM_READ |
| .rdata | 0x4e000 | 0x107c4 | 0x10800 | False | 0.418604995265 | data | 5.4012865504 | IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ |

| Name | Virtual Address | Virtual Size | Raw Size | Xored PE | ZLIB Complexity | File Type | Entropy | Characteristics |
|--------|-----------------|--------------|----------|----------|-----------------|-----------|---------------|-------------------------------------------------------------------------------|
| .data | 0x5f000 | 0x12b554 | 0x12a200 | False | 0.175606001048 | data | 2.35283899818 | IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_WRITE, IMAGE_SCN_MEM_READ |
| .rsrc | 0x18b000 | 0x1e0 | 0x200 | False | 0.53125 | data | 4.71229819329 | IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ |
| .reloc | 0x18c000 | 0x3914 | 0x3a00 | False | 0.747306034483 | data | 6.62483061725 | IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_DISCARDABLE, IMAGE_SCN_MEM_READ |

Resources

Imports

Possible Origin

| Language of compilation system | Country where language is spoken | Map |
|--------------------------------|----------------------------------|-------------------------------------------------------------------------------------|
| English | United States |  |

Network Behavior

Network Port Distribution

UDP Packets

Code Manipulations

Statistics

Behavior

 [Click to jump to process](#)

System Behavior

Analysis Process: sb.exe PID: 6404 Parent PID: 4560

General

| | |
|------------------------|---------------------------------|
| Start time: | 11:49:08 |
| Start date: | 28/09/2021 |
| Path: | C:\Users\user\Desktop\s_b.exe |
| Wow64 process (32bit): | true |
| Commandline: | 'C:\Users\user\Desktop\s_b.exe' |
| Imagebase: | 0xcb0000 |
| File size: | 1627136 bytes |

| | |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MD5 hash: | E310CB3185D95E3DDA42F0230B569D84 |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Yara matches: | <ul style="list-style-type: none"> • Rule: JoeSecurity_CredentialStealer, Description: Yara detected Credential Stealer, Source: 00000000.00000002.374825576.00000000031F6000.00000002.00000001.sdmp, Author: Joe Security • Rule: JoeSecurity_AveMaria, Description: Yara detected AveMaria stealer, Source: 00000000.00000002.374825576.00000000031F6000.00000002.00000001.sdmp, Author: Joe Security • Rule: JoeSecurity_CredentialStealer, Description: Yara detected Credential Stealer, Source: 00000000.00000002.374727716.00000000027E0000.00000040.00000001.sdmp, Author: Joe Security • Rule: JoeSecurity_AveMaria, Description: Yara detected AveMaria stealer, Source: 00000000.00000002.374727716.00000000027E0000.00000040.00000001.sdmp, Author: Joe Security |
| Reputation: | low |

File Activities

Show Windows behavior

File Read

Registry Activities

Show Windows behavior

Analysis Process: conhost.exe PID: 6408 Parent PID: 6404

General

| | |
|-------------------------------|-----------------------------------------------------|
| Start time: | 11:49:09 |
| Start date: | 28/09/2021 |
| Path: | C:\Windows\System32\conhost.exe |
| Wow64 process (32bit): | false |
| Commandline: | C:\Windows\system32\conhost.exe 0xffffffff -ForceV1 |
| Imagebase: | 0x7ff7f20f0000 |
| File size: | 625664 bytes |
| MD5 hash: | EA777DEEA782E8B4D7C7C33BBF8A4496 |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Reputation: | high |

Disassembly

Code Analysis