



**ID:** 358328

**Sample Name:** Swift doc.

ZD.1.19022021\_PDF.exe

**Cookbook:** default.jbs

**Time:** 12:19:54

**Date:** 25/02/2021

**Version:** 31.0.0 Emerald

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# Analysis Report Swift doc. ZD.1.19022021\_PDF.exe

## Overview

### General Information

|              |                                  |
|--------------|----------------------------------|
| Sample Name: | Swift doc. ZD.1.19022021_PDF.exe |
| Analysis ID: | 358328                           |
| MD5:         | 5679c66fd0ebcd6..                |
| SHA1:        | dbba96ad2d1c38..                 |
| SHA256:      | 949138db57c941..                 |
| Tags:        | exe                              |
| Infos:       |                                  |

Most interesting Screenshot:



### Detection



**AgentTesla**

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

### Signatures

- Found malware configuration
- Multi AV Scanner detection for subm...
- Yara detected AgentTesla
- Yara detected AntiVM\_3
- .NET source code contains very larg...
- C2 URLs / IPs found in malware con...
- Initial sample is a PE file and has a ...
- Machine Learning detection for samp...
- Queries sensitive BIOS Information ...
- Queries sensitive network adapter in...
- Tries to detect sandboxes and other...
- Tries to harvest and steal Putty / Wi...

### Classification



## Startup

- System is w10x64
- Swift doc. ZD.1.19022021\_PDF.exe** (PID: 7020 cmdline: 'C:\Users\user\Desktop\Swift doc. ZD.1.19022021\_PDF.exe' MD5: 5679C66FD0EBCD6B8702C5C9E8F1ECB6)
- cleanup

## Malware Configuration

### Threatname: Agenttesla

```
{
  "Username": "SYgLhOXLAKJaD",
  "URL": "https://T4gAxtuj18rwIFW1VRIf.com",
  "To": "fikriye@turuncoglu.com",
  "ByHost": "smtp.yandex.com:587",
  "Password": "Eb0iB",
  "From": "fikriye@turuncoglu.com"
}
```

## Yara Overview

### Memory Dumps

| Source  | Rule                          | Description                      | Author       | Strings |
|---|-------------------------------|----------------------------------|--------------|---------|
| 00000001.00000002.922521029.000000000448<br>B000.00000004.00000001.sdmp | JoeSecurity_AgentTesla_1      | Yara detected AgentTesla         | Joe Security |         |
| 00000001.00000002.923663679.00000000063E<br>0000.00000004.00000001.sdmp | JoeSecurity_AgentTesla_1      | Yara detected AgentTesla         | Joe Security |         |
| 00000001.00000002.917324348.000000000324<br>1000.00000004.00000001.sdmp | JoeSecurity_AntiVM_3          | Yara detected AntiVM_3           | Joe Security |         |
| 00000001.00000002.917324348.000000000324<br>1000.00000004.00000001.sdmp | JoeSecurity_CredentialStealer | Yara detected Credential Stealer | Joe Security |         |
| Process Memory Space: Swift doc. ZD.1.19022021_PDF.exe PID: 7020        | JoeSecurity_AgentTesla_1      | Yara detected AgentTesla         | Joe Security |         |

Click to see the 2 entries

## Unpacked PEs

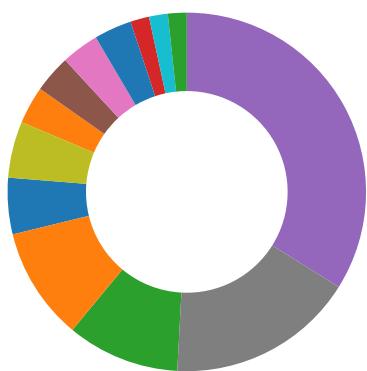
| Source  | Rule                     | Description              | Author       | Strings |
|---|--------------------------|--------------------------|--------------|---------|
| 1.2.Swift doc. ZD.1.19022021_PDF.exe.63e0000.9.raw.unpack | JoeSecurity_AgentTesla_1 | Yara detected AgentTesla | Joe Security |         |
| 1.2.Swift doc. ZD.1.19022021_PDF.exe.44f98c0.5.unpack     | JoeSecurity_AgentTesla_1 | Yara detected AgentTesla | Joe Security |         |
| 1.2.Swift doc. ZD.1.19022021_PDF.exe.44f98c0.5.raw.unpack | JoeSecurity_AgentTesla_1 | Yara detected AgentTesla | Joe Security |         |
| 1.2.Swift doc. ZD.1.19022021_PDF.exe.63e0000.9.unpack     | JoeSecurity_AgentTesla_1 | Yara detected AgentTesla | Joe Security |         |
| 1.2.Swift doc. ZD.1.19022021_PDF.exe.3270530.2.raw.unpack | JoeSecurity_AntiVM_3     | Yara detected AntiVM_3   | Joe Security |         |

Click to see the 1 entries

## Sigma Overview

No Sigma rule has matched

## Signature Overview



- AV Detection
- Compliance
- Networking
- Key, Mouse, Clipboard, Microphone and Screen Capturing
- System Summary
- Data Obfuscation
- Hooking and other Techniques for Hiding and Protection
- Malware Analysis System Evasion
- Anti Debugging
- HIPS / PFW / Operating System Protection Evasion
- Language, Device and Operating System Detection
- Stealing of Sensitive Information
- Remote Access Functionality

💡 Click to jump to signature section

## AV Detection:



Found malware configuration

Multi AV Scanner detection for submitted file

Machine Learning detection for sample

## Compliance:



Uses 32bit PE files

Contains modern PE file flags such as dynamic base (ASLR) or NX

## Networking:



C2 URLs / IPs found in malware configuration

## System Summary:



.NET source code contains very large strings

Initial sample is a PE file and has a suspicious name

## Malware Analysis System Evasion:



Yara detected AntiVM\_3

Queries sensitive BIOS Information (via WMI, Win32\_Bios & Win32\_BaseBoard, often done to detect virtual machines)

Queries sensitive network adapter information (via WMI, Win32\_NetworkAdapter, often done to detect virtual machines)

Tries to detect sandboxes and other dynamic analysis tools (process name or module or function)

## Stealing of Sensitive Information:



Yara detected AgentTesla

Tries to harvest and steal Putty / WinSCP information (sessions, passwords, etc)

Tries to harvest and steal browser information (history, passwords, etc)

Tries to harvest and steal ftp login credentials

Tries to steal Mail credentials (via file access)

## Remote Access Functionality:

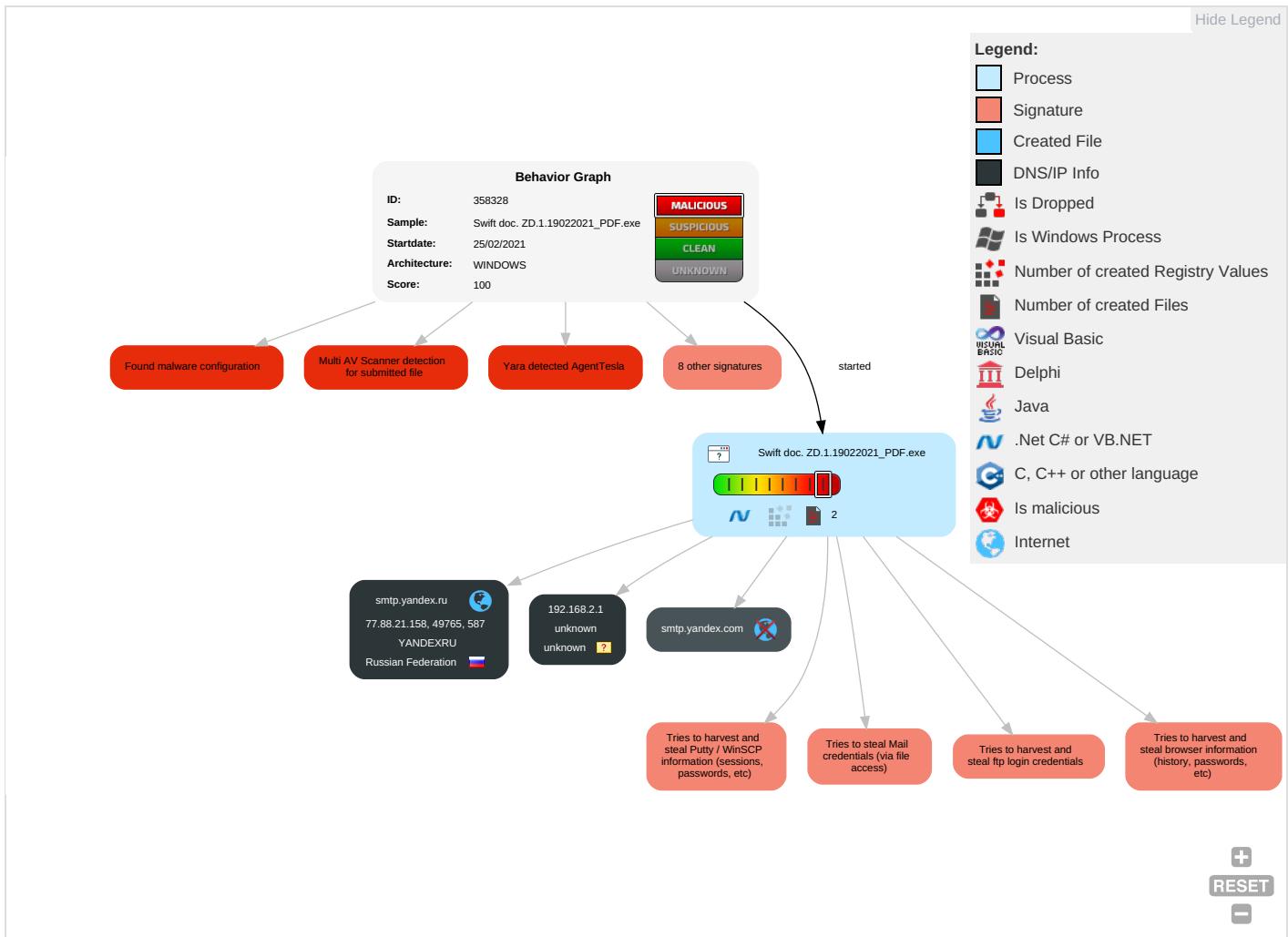


Yara detected AgentTesla

## Mitre Att&ck Matrix

| Initial Access                      | Execution  | Persistence                          | Privilege Escalation                                   | Defense Evasion   | Credential Access  | Discovery  | Lateral Movement                   | Collection  | Exfiltration                           | Command and Control  | New         |
|-------------------------------------|--|--------------------------------------|--|---|--|--|------------------------------------|---|--|--|-------------|
|                                     |  |                                      |  |   |  |  |                                    |   |  |  | Exfil       |
| Valid Accounts                      | Windows Management Instrumentation <span style="color: red;">2</span> <span style="color: orange;">1</span> <span style="color: green;">1</span> | Path Interception                    | Process Injection <span style="color: green;">1</span> | Virtualization/Sandbox Evasion <span style="color: red;">1</span> <span style="color: orange;">3</span> | OS Credential Dumping <span style="color: blue;">2</span>  | Query Registry <span style="color: red;">1</span>  | Remote Services                    | Email Collection <span style="color: red;">1</span>       | Exfiltration Over Other Network Medium | Encrypted Channel <span style="color: red;">1</span>   | E: In N: C: |
| Default Accounts                    | Scheduled Task/Job   | Boot or Logon Initialization Scripts | Boot or Logon Initialization Scripts                   | Disable or Modify Tools <span style="color: green;">1</span>  | Credentials in Registry <span style="color: red;">1</span> | Security Software Discovery <span style="color: red;">2</span> <span style="color: orange;">1</span> <span style="color: green;">1</span>  | Remote Desktop Protocol            | Archive Collected Data <span style="color: red;">1</span> | Exfiltration Over Bluetooth            | Non-Standard Port <span style="color: red;">1</span>   | E: R: C:    |
| Domain Accounts                     | At (Linux)   | Logon Script (Windows)               | Logon Script (Windows)                                 | Process Injection <span style="color: green;">1</span>  | Security Account Manager                                   | Virtualization/Sandbox Evasion <span style="color: red;">1</span> <span style="color: orange;">3</span>                                    | SMB/Windows Admin Shares           | Data from Local System <span style="color: red;">2</span> | Automated Exfiltration                 | Non-Application Layer Protocol <span style="color: red;">1</span>                                  | E: T: L:    |
| Local Accounts                      | At (Windows)   | Logon Script (Mac)                   | Logon Script (Mac)                                     | Obfuscated Files or Information <span style="color: red;">2</span> <span style="color: green;">1</span> | NTDS   | Process Discovery <span style="color: red;">2</span>   | Distributed Component Object Model | Clipboard Data <span style="color: red;">1</span>         | Scheduled Transfer                     | Application Layer Protocol <span style="color: red;">1</span> <span style="color: green;">1</span> | SI: SI:     |
| Cloud Accounts                      | Cron   | Network Logon Script                 | Network Logon Script                                   | Software Packing <span style="color: red;">1</span>   | LSA Secrets  | Application Window Discovery <span style="color: green;">1</span>  | SSH                                | Keylogging  | Data Transfer Size Limits              | Fallback Channels  | M: D: C:    |
| Replication Through Removable Media | Launchd  | Rc.common                            | Rc.common  | Steganography   | Cached Domain Credentials                                  | Remote System Discovery <span style="color: green;">1</span>   | VNC                                | GUI Input Capture   | Exfiltration Over C2 Channel           | Multiband Communication  | J: D: S:    |
| External Remote Services            | Scheduled Task   | Startup Items                        | Startup Items  | Compile After Delivery  | DCSync   | System Information Discovery <span style="color: red;">1</span> <span style="color: orange;">1</span> <span style="color: green;">4</span> | Windows Remote Management          | Web Portal Capture  | Exfiltration Over Alternative Protocol | Commonly Used Port   | R: A:       |

## Behavior Graph

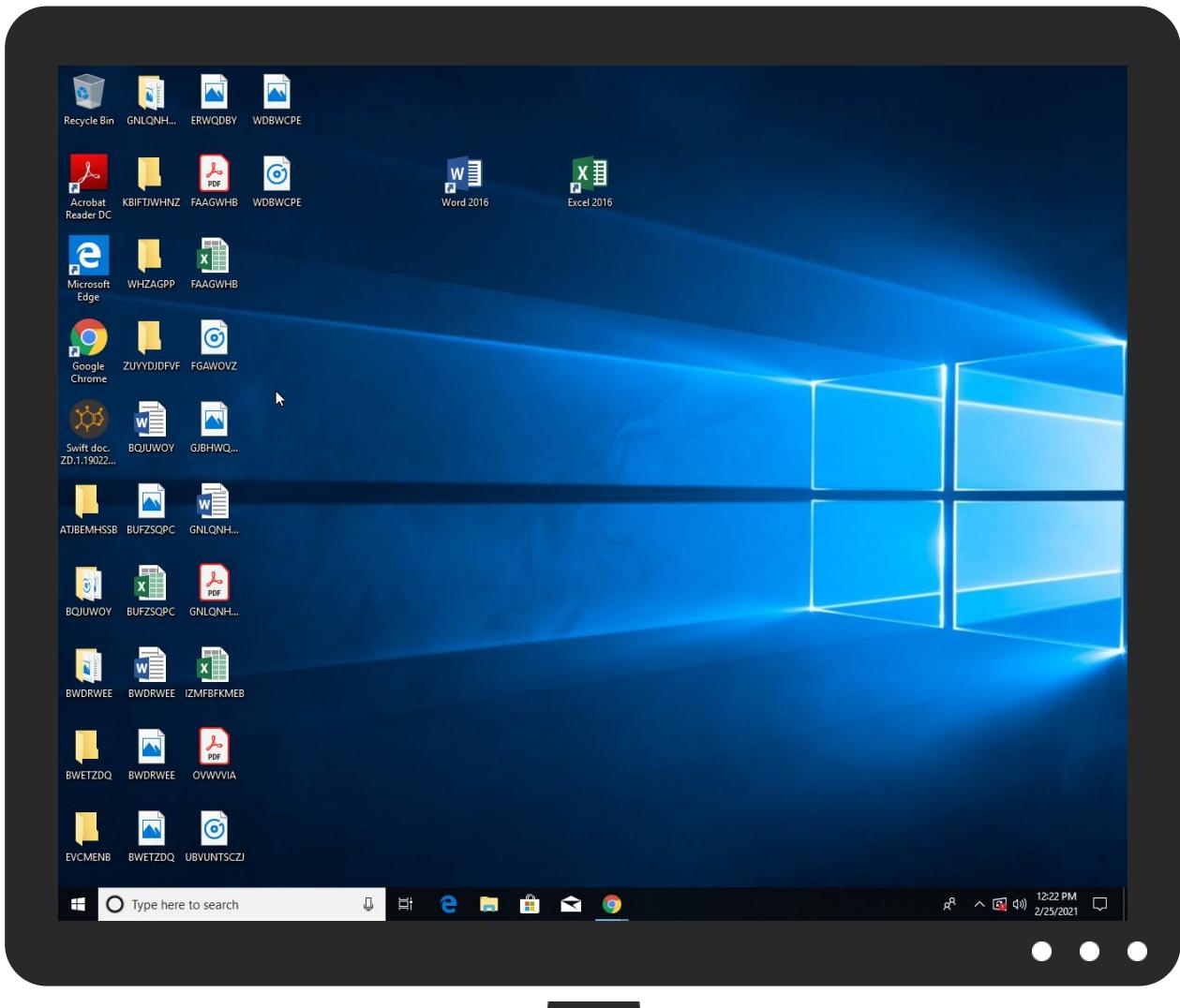


## Screenshots

### 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 |
|----------------------------------|-----------|----------------|----------------------|------|
| Swift doc. ZD.1.19022021_PDF.exe | 11%       | ReversingLabs  | Win32.Trojan.Wacatac |      |
| Swift doc. ZD.1.19022021_PDF.exe | 100%      | Joe Sandbox ML |                      |      |

### Dropped Files

No Antivirus matches

### Unpacked PE Files

No Antivirus matches

### Domains

No Antivirus matches

### URLs

| Source  | Detection | Scanner        | Label | Link |
|---|-----------|----------------|-------|------|
| <a href="http://subca.ocsp-certum.com0">http://subca.ocsp-certum.com0</a> | 0%        | URL Reputation | safe  |      |
| <a href="http://subca.ocsp-certum.com0">http://subca.ocsp-certum.com0</a> | 0%        | URL Reputation | safe  |      |
| <a href="http://subca.ocsp-certum.com0">http://subca.ocsp-certum.com0</a> | 0%        | URL Reputation | safe  |      |

| Source  | Detection | Scanner         | Label | Link |
|---|-----------|-----------------|-------|------|
| http://subca.ocsp-certum.com0.  | 0%        | URL Reputation  | safe  |      |
| http://127.0.0.1:HTTP/1.1   | 0%        | Avira URL Cloud | safe  |      |
| http://DynDns.comDynDNS   | 0%        | URL Reputation  | safe  |      |
| http://DynDns.comDynDNS   | 0%        | URL Reputation  | safe  |      |
| http://DynDns.comDynDNS   | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%%ha | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%%ha | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%%ha | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%%ha | 0%        | URL Reputation  | safe  |      |
| http://subca.ocsp-certum.com01  | 0%        | URL Reputation  | safe  |      |
| http://subca.ocsp-certum.com01  | 0%        | URL Reputation  | safe  |      |
| http://subca.ocsp-certum.com01  | 0%        | URL Reputation  | safe  |      |
| http://subca.ocsp-certum.com01  | 0%        | URL Reputation  | safe  |      |
| http://https://T4gAxtuj18rwIFW1VRI.com  | 0%        | Avira URL Cloud | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip            | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip            | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip            | 0%        | URL Reputation  | safe  |      |
| http://https://www.theonionrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip            | 0%        | URL Reputation  | safe  |      |
| http://NfuOAc.com   | 0%        | Avira URL Cloud | safe  |      |
| http://yandex.ocsp-responder.com03  | 0%        | URL Reputation  | safe  |      |
| http://yandex.ocsp-responder.com03  | 0%        | URL Reputation  | safe  |      |
| http://yandex.ocsp-responder.com03  | 0%        | URL Reputation  | safe  |      |
| http://yandex.ocsp-responder.com03  | 0%        | URL Reputation  | safe  |      |

## Domains and IPs

### Contacted Domains

| Name            | IP           | Active  | Malicious | Antivirus Detection | Reputation |
|-----------------|--------------|---------|-----------|---------------------|------------|
| smtp.yandex.ru  | 77.88.21.158 | true    | false     |                     | high       |
| smtp.yandex.com | unknown      | unknown | false     |                     | high       |

### Contacted URLs

| Name                                   | Malicious | Antivirus Detection     | Reputation |
|--|-----------|-------------------------|------------|
| http://https://T4gAxtuj18rwIFW1VRI.com | true      | • Avira URL Cloud: safe | unknown    |

### URLs from Memory and Binaries

| Name                                    | Source  | Malicious | Antivirus Detection  | Reputation |
|---|---|-----------|--|------------|
| http://subca.ocsp-certum.com0.          | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     | • URL Reputation: safe<br>• URL Reputation: safe<br>• URL Reputation: safe<br>• URL Reputation: safe | unknown    |
| http://repository.certum.pl/ca.cer09    | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| http://127.0.0.1:HTTP/1.1               | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     | • Avira URL Cloud: safe  | low        |
| http://DynDns.comDynDNS                 | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     | • URL Reputation: safe<br>• URL Reputation: safe<br>• URL Reputation: safe<br>• URL Reputation: safe | unknown    |
| http://repository.certum.pl/ctnca.cer09 | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |

| Name  | Source  | Malicious | Antivirus Detection  | Reputation |
|---|---|-----------|--|------------|
| <a href="http://crls.yandex.net/certum/ycasha2.crl0">http://crls.yandex.net/certum/ycasha2.crl0-</a>  | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://https://www.theiononrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%ha">http://https://www.theiononrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip%tordir%ha</a> | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     | <ul style="list-style-type: none"> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> </ul> | unknown    |
| <a href="http://crl.certum.pl/ctnca.crl0k">http://crl.certum.pl/ctnca.crl0k</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://subca.ocsp-certum.com01">http://subca.ocsp-certum.com01</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     | <ul style="list-style-type: none"> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> </ul> | unknown    |
| <a href="http://yandex.crl.certum.pl/ycasha2.crl0q">http://yandex.crl.certum.pl/ycasha2.crl0q</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://crl.certum.pl/ca.crl0h">http://crl.certum.pl/ca.crl0h</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://https://www.certum.pl/CPS0">http://https://www.certum.pl/CPS0</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name">http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://https://www.theiononrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip">http://https://www.theiononrouter.com/dist.torproject.org/torbrowser/9.5.3/tor-win32-0.4.3.6.zip</a>                     | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92252102 9.000000000448B000.00000004.00 000001.sdmp | false     | <ul style="list-style-type: none"> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> </ul> | unknown    |
| <a href="http://www.certum.pl/CPS0">http://www.certum.pl/CPS0</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css">http://https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://smtp.yandex.com">http://smtp.yandex.com</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91960628 9.0000000003566000.00000004.00 000001.sdmp | false     |  | high       |
| <a href="http://NfuOAc.com">http://NfuOAc.com</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.91732434 8.0000000003241000.00000004.00 000001.sdmp | false     | <ul style="list-style-type: none"> <li>• Avira URL Cloud: safe</li> </ul>  | unknown    |
| <a href="http://yandex.ocsp-responder.com03">http://yandex.ocsp-responder.com03</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     | <ul style="list-style-type: none"> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> <li>• URL Reputation: safe</li> </ul> | unknown    |
| <a href="http://repository.certum.pl/ycasha2.cer0">http://repository.certum.pl/ycasha2.cer0</a>   | Swift doc. ZD.1.19022021_PDF.exe, 00000001.00000002.92404125 8.0000000006DAF000.00000004.00 000001.sdmp | false     |  | high       |

## Contacted IPs



## Public

| IP           | Domain  | Country            | Flag | ASN   | ASN Name  | Malicious |
|--------------|---------|--------------------|------|-------|-----------|-----------|
| 77.88.21.158 | unknown | Russian Federation |      | 13238 | YANDEXRUS | false     |

## Private

| IP          |
|-------------|
| 192.168.2.1 |

## General Information

|  |   |
|--|---|
| Joe Sandbox Version:                               | 31.0.0 Emerald  |
| Analysis ID:                                       | 358328  |
| Start date:  | 25.02.2021  |
| Start time:  | 12:19:54  |
| Joe Sandbox Product:                               | CloudBasic  |
| Overall analysis duration:                         | 0h 6m 52s   |
| Hypervisor based Inspection enabled:               | false   |
| Report type:                                       | light   |
| Sample file name:                                  | Swift doc. ZD.1.19022021_PDF.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: | 17  |
| 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"> <li>• HCA enabled</li> <li>• EGA enabled</li> <li>• HDC enabled</li> <li>• AMSI enabled</li> </ul> |
| Analysis Mode:                                     | default   |

|                       |  |
|-----------------------|--|
| Analysis stop reason: | Timeout  |
| Detection:            | MAL  |
| Classification:       | mal100.troj.spyw.evad.winEXE@1/0@2/2   |
| EGA Information:      | Failed   |
| HDC Information:      | <ul style="list-style-type: none"> <li>Successful, ratio: 0% (good quality ratio 0%)</li> <li>Quality average: 84%</li> <li>Quality standard deviation: 5%</li> </ul>  |
| HCA Information:      | <ul style="list-style-type: none"> <li>Successful, ratio: 100%</li> <li>Number of executed functions: 0</li> <li>Number of non-executed functions: 0</li> </ul>  |
| Cookbook Comments:    | <ul style="list-style-type: none"> <li>Adjust boot time</li> <li>Enable AMSI</li> <li>Found application associated with file extension: .exe</li> </ul>  |
| Warnings:             | <a href="#">Show All</a> <ul style="list-style-type: none"> <li>Exclude process from analysis (whitelisted): BackgroundTransferHost.exe, backgroundTaskHost.exe, svchost.exe, wuaupihost.exe</li> <li>Excluded IPs from analysis (whitelisted): 13.64.90.137, 13.88.21.125, 23.211.6.115, 168.61.161.212, 104.42.151.234, 52.147.198.201, 51.104.139.180, 52.155.217.156, 20.54.26.129, 2.20.142.209, 2.20.142.210, 51.132.208.181, 92.122.213.194, 92.122.213.247, 51.11.168.160</li> <li>Excluded domains from analysis (whitelisted): au.download.windowsupdate.com.edgesuite.net, arc.msn.com.nsac.net, store-images.s-microsoft.com-c.edgekey.net, a1449.dscg2.akamai.net, arc.msn.com, db5eap.displaycatalog.md.mp.microsoft.com.akadns.net, e12564.dsdp.akamaiedge.net, audownload.windowsupdate.nsac.net, displaycatalog.mp.microsoft.com, watson.telemetry.microsoft.com, img-prod-cms-rt-microsoft.com.akamaized.net, au-bg-shim.trafficmanager.net, displaycatalog-europeap.md.mp.microsoft.com.akadns.net, skypedataprddcolvus17.cloudapp.net, displaycatalog-rp-europe.md.mp.microsoft.com.akadns.net, db3p-ris-pf-prod-atm.trafficmanager.net, displaycatalog.md.mp.microsoft.com.akadns.net, ris-prod.trafficmanager.net, skypedataprddcolcus17.cloudapp.net, ctdl.windowsupdate.com, a767.dscg3.akamai.net, skypedataprddcoleus16.cloudapp.net, ris.api.iris.microsoft.com, store-images.s-microsoft.com, blobcollector.events.data.trafficmanager.net, skypedataprddcolwus15.cloudapp.net, skypedataprddcolwus16.cloudapp.net, displaycatalog-rp.md.mp.microsoft.com.akadns.net</li> <li>Report size getting too big, too many NtAllocateVirtualMemory calls found.</li> <li>Report size getting too big, too many NtOpenKeyEx calls found.</li> <li>Report size getting too big, too many NtProtectVirtualMemory calls found.</li> <li>Report size getting too big, too many NtQueryValueKey calls found.</li> </ul> |

## Simulations

### Behavior and APIs

| Time     | Type            | Description  |
|----------|-----------------|--|
| 12:20:43 | API Interceptor | 845x Sleep call for process: Swift doc. ZD.1.19022021_PDF.exe modified |

## Joe Sandbox View / Context

## IPs

| Match        | Associated Sample Name / URL                                     | SHA 256  | Detection | Link   | Context |
|--------------|--|----------|-----------|--------|---------|
| 77.88.21.158 | inmyB8Hxr9.exe   | Get hash | malicious | Browse |         |
|              | HTTPS_update_02_2021.exe   | Get hash | malicious | Browse |         |
|              | HTTPS_update_02_2021.exe   | Get hash | malicious | Browse |         |
|              | KBUo30E6s.exe  | Get hash | malicious | Browse |         |
|              | FspMzSMtYA.exe   | Get hash | malicious | Browse |         |
|              | w0dAcJplm1.exe   | Get hash | malicious | Browse |         |
|              | VfUIDo471c.exe   | Get hash | malicious | Browse |         |
|              | FEB PROCESSED.xlsx   | Get hash | malicious | Browse |         |
|              | q13a8EbUPB.exe   | Get hash | malicious | Browse |         |
|              | SecuriteInfo.com.Trojan.GenericKDZ.73120.3552.exe                | Get hash | malicious | Browse |         |
|              | PO Contract -SCPL0882021 & sales contract ZD.1.190 22021_PDF.exe | Get hash | malicious | Browse |         |
|              | pass.exe   | Get hash | malicious | Browse |         |
|              | nXKdiUgIYy.exe   | Get hash | malicious | Browse |         |
|              | x4cXV3784J.exe   | Get hash | malicious | Browse |         |
|              | Request For Quotation #D22022021_pdf.exe                         | Get hash | malicious | Browse |         |
|              | RFQ_PDRVVK2200248_00667_PDF.exe                                  | Get hash | malicious | Browse |         |
|              | eml0MqOvFw.exe   | Get hash | malicious | Browse |         |
|              | ZnsXrCArI.exe  | Get hash | malicious | Browse |         |
|              | zyp9gbDQHw.exe   | Get hash | malicious | Browse |         |
|              | DHL Shipment Notification.PDF.exe                                | Get hash | malicious | Browse |         |

## Domains

| Match          | Associated Sample Name / URL                                     | SHA 256  | Detection | Link   | Context        |
|----------------|--|----------|-----------|--------|----------------|
| smtp.yandex.ru | inmyB8Hxr9.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | HTTPS_update_02_2021.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | HTTPS_update_02_2021.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | KBUo30E6s.exe  | Get hash | malicious | Browse | • 77.88.21.158 |
|                | FspMzSMtYA.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | w0dAcJplm1.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | VfUIDo471c.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | FEB PROCESSED.xlsx   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | q13a8EbUPB.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | SecuriteInfo.com.Trojan.GenericKDZ.73120.3552.exe                | Get hash | malicious | Browse | • 77.88.21.158 |
|                | PO Contract -SCPL0882021 & sales contract ZD.1.190 22021_PDF.exe | Get hash | malicious | Browse | • 77.88.21.158 |
|                | pass.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | nXKdiUgIYy.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | x4cXV3784J.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | Request For Quotation #D22022021_pdf.exe                         | Get hash | malicious | Browse | • 77.88.21.158 |
|                | RFQ_PDRVVK2200248_00667_PDF.exe                                  | Get hash | malicious | Browse | • 77.88.21.158 |
|                | eml0MqOvFw.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | ZnsXrCArI.exe  | Get hash | malicious | Browse | • 77.88.21.158 |
|                | zyp9gbDQHw.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|                | DHL Shipment Notification.PDF.exe                                | Get hash | malicious | Browse | • 77.88.21.158 |

## ASN

| Match    | Associated Sample Name / URL | SHA 256  | Detection | Link   | Context         |
|----------|------------------------------|----------|-----------|--------|-----------------|
| YANDEXRU | inmyB8Hxr9.exe               | Get hash | malicious | Browse | • 77.88.21.158  |
|          | rtofwqxq.exe                 | Get hash | malicious | Browse | • 87.250.250.22 |
|          | HTTPS_update_02_2021.exe     | Get hash | malicious | Browse | • 77.88.21.158  |
|          | HTTPS_update_02_2021.exe     | Get hash | malicious | Browse | • 77.88.21.158  |
|          | KBUo30E6s.exe                | Get hash | malicious | Browse | • 77.88.21.158  |
|          | FspMzSMtYA.exe               | Get hash | malicious | Browse | • 77.88.21.158  |
|          | Wd8LBdddKD.exe               | Get hash | malicious | Browse | • 37.9.96.19    |
|          | Wd8LBdddKD.exe               | Get hash | malicious | Browse | • 37.9.96.14    |
|          | w0dAcJplm1.exe               | Get hash | malicious | Browse | • 77.88.21.158  |
|          | VfUIDo471c.exe               | Get hash | malicious | Browse | • 77.88.21.158  |
|          | FEB PROCESSED.xlsx           | Get hash | malicious | Browse | • 77.88.21.158  |
|          | q13a8EbUPB.exe               | Get hash | malicious | Browse | • 77.88.21.158  |

| Match | Associated Sample Name / URL                                     | SHA 256  | Detection | Link   | Context        |
|-------|--|----------|-----------|--------|----------------|
|       | SecuriteInfo.com.Trojan.GenericKDZ.73120.3552.exe                | Get hash | malicious | Browse | • 77.88.21.158 |
|       | PO Contract -SCPL0882021 & sales contract ZD.1.190 22021_PDF.exe | Get hash | malicious | Browse | • 77.88.21.158 |
|       | pass.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|       | nXKdiUgIYy.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|       | x4cXV3784J.exe   | Get hash | malicious | Browse | • 77.88.21.158 |
|       | Request For Quotation #D22022021_pdf.exe                         | Get hash | malicious | Browse | • 77.88.21.158 |
|       | RFQ_PDRV2200248_00667_PDF.exe                                    | Get hash | malicious | Browse | • 77.88.21.158 |
|       | eml0MqOvFw.exe   | Get hash | malicious | Browse | • 77.88.21.158 |

## JA3 Fingerprints

No context

## Dropped Files

No context

## Created / dropped Files

No created / dropped files found

## Static File Info

### General

|                       |  |
|-----------------------|--|
| File type:            | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows   |
| Entropy (8bit):       | 7.023314877630659  |
| TrID:                 | <ul style="list-style-type: none"> <li>Win32 Executable (generic) Net Framework (10011505/4) 49.80%</li> <li>Win32 Executable (generic) a (10002005/4) 49.75%</li> <li>Generic CIL Executable (.NET, Mono, etc.) (73296/58) 0.36%</li> <li>Windows Screen Saver (13104/52) 0.07%</li> <li>Generic Win/DOS Executable (2004/3) 0.01%</li> </ul> |
| File name:            | Swift doc. ZD.1.19022021_PDF.exe   |
| File size:            | 770048   |
| MD5:                  | 5679c66fd0ebcd6b8702c5c9e8f1ecb6   |
| SHA1:                 | dbba96ad2d1c3811812eadd985401822f9ef54b9   |
| SHA256:               | 949138db57c941e64a0a14bc7e87f68576dadf09f8ac56faa6776476161fb0b8   |
| SHA512:               | 90c5e00b545dc5f8d54c9580643a9ebe3ba0a40131eb6a98d3501058dd9879ae2041c42bbdc89ba7ddf2936a35902c8d4c83d84d0fd0d3124e1a358e573faa7  |
| SSDeep:               | 12288:T9v6xdnFRrvvijnBCTo+DH2JgapeB1wMrEssALmx1:Tt6x1r4nVYTDHYMB1wOsALE  |
| File Content Preview: | MZ.....@.....!..L!Th<br>is program cannot be run in DOS mode....\$.....PE..L...<br>wj7` .....P..h...V.....@.. .....<br>.....@.....   |

## File Icon



Icon Hash:

e0dad4adc4d2d870

## Static PE Info

### General

|                     |          |
|---------------------|----------|
| Entrypoint:         | 0x4b86da |
| Entrypoint Section: | .text    |

| General                     |  |
|-----------------------------|--|
| Digitally signed:           | false  |
| Imagebase:                  | 0x400000   |
| Subsystem:                  | windows gui  |
| Image File Characteristics: | 32BIT_MACHINE, EXECUTABLE_IMAGE                        |
| DLL Characteristics:        | NO_SEH, TERMINAL_SERVER_AWARE, DYNAMIC_BASE, NX_COMPAT |
| Time Stamp:                 | 0x60376A77 [Thu Feb 25 09:14:31 2021 UTC]              |
| TLS Callbacks:              |  |
| CLR (.Net) Version:         | v4.0.30319   |
| OS Version Major:           | 4  |
| OS Version Minor:           | 0  |
| File Version Major:         | 4  |
| File Version Minor:         | 0  |
| Subsystem Version Major:    | 4  |
| Subsystem Version Minor:    | 0  |
| Import Hash:                | f34d5f2d4577ed6d9ceec516c1f5a744                       |

## Entrypoint Preview

### Instruction

```
jmp dword ptr [00402000h]
```

```
add byte ptr [eax], al
```

## Data Directories

| Name                            | Virtual Address | Virtual Size | Is in Section |
|---------------------------------|-----------------|--------------|---------------|
| IMAGE_DIRECTORY_ENTRY_EXPORT    | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_IMPORT    | 0xb8688         | 0x4f         | .text         |
| IMAGE_DIRECTORY_ENTRY_RESOURCE  | 0xba000         | 0x5208       | .rsrc         |
| IMAGE_DIRECTORY_ENTRY_EXCEPTION | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_SECURITY  | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_BASERELOC | 0xc0000         | 0xc          | .reloc        |
| IMAGE_DIRECTORY_ENTRY_DEBUG     | 0x0             | 0x0          |               |

| Name                                 | Virtual Address | Virtual Size | Is in Section |
|--------------------------------------|-----------------|--------------|---------------|
| IMAGE_DIRECTORY_ENTRY_COPYRIGHT      | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_GLOBALPTR      | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_TLS            | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_LOAD_CONFIG    | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_BOUND_IMPORT   | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_IAT            | 0x2000          | 0x8          | .text         |
| IMAGE_DIRECTORY_ENTRY_DELAY_IMPORT   | 0x0             | 0x0          |               |
| IMAGE_DIRECTORY_ENTRY_COM_DESCRIPTOR | 0x2008          | 0x48         | .text         |
| IMAGE_DIRECTORY_ENTRY_RESERVED       | 0x0             | 0x0          |               |

## Sections

| Name   | Virtual Address | Virtual Size | Raw Size | Xored PE | ZLIB Complexity | File Type | Entropy        | Characteristics  |
|--------|-----------------|--------------|----------|----------|-----------------|-----------|----------------|--|
| .text  | 0x2000          | 0xb66e0      | 0xb6800  | False    | 0.598153895548  | data      | 7.03776347249  | IMAGE_SCN_MEM_EXECUTE,<br>IMAGE_SCN_CNT_CODE,<br>IMAGE_SCN_MEM_READ                      |
| .rsrc  | 0xba000         | 0x5208       | 0x5400   | False    | 0.185360863095  | data      | 4.1978823981   | IMAGE_SCN_CNT_INITIALIZED_D<br>ATA, IMAGE_SCN_MEM_READ                                   |
| .reloc | 0xc0000         | 0xc          | 0x200    | False    | 0.044921875     | data      | 0.101910425663 | IMAGE_SCN_CNT_INITIALIZED_D<br>ATA,<br>IMAGE_SCN_MEM_DISCARDABLE<br>, IMAGE_SCN_MEM_READ |

## Resources

| Name          | RVA     | Size   | Type   | Language | Country |
|---------------|---------|--------|--|----------|---------|
| RT_ICON       | 0xba100 | 0x4228 | dBase III DBT, version number 0, next free block index 40                          |          |         |
| RT_GROUP_ICON | 0xbe338 | 0x14   | data   |          |         |
| RT_VERSION    | 0xbe35c | 0x380  | data   |          |         |
| RT_MANIFEST   | 0xbe6ec | 0xb15  | XML 1.0 document, UTF-8 Unicode (with BOM) text, with<br>CRLF, LF line terminators |          |         |

## Imports

| DLL         | Import      |
|-------------|-------------|
| mscoree.dll | _CorExeMain |

## Version Infos

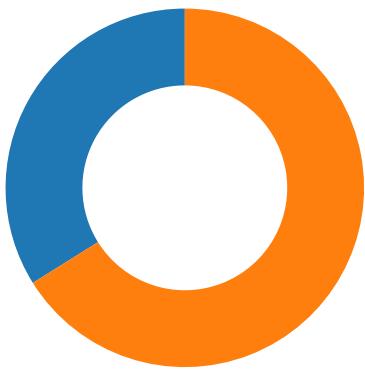
| Description      | Data                             |
|------------------|----------------------------------|
| Translation      | 0x0000 0x04b0                    |
| LegalCopyright   | Copyright 2014                   |
| Assembly Version | 3.0.0.0                          |
| InternalName     | RSAPKCS1SignatureDescription.exe |
| FileVersion      | 3.0.0.0                          |
| CompanyName      | KTV                              |
| LegalTrademarks  |                                  |
| Comments         |                                  |
| ProductName      | KTVManagement                    |
| ProductVersion   | 3.0.0.0                          |
| FileDescription  | KTVManagement                    |
| OriginalFilename | RSAPKCS1SignatureDescription.exe |

## Network Behavior

### Network Port Distribution

Total Packets: 59

● 53 (DNS)



### TCP Packets

| Timestamp                           | Source Port | Dest Port | Source IP    | Dest IP      |
|-------------------------------------|-------------|-----------|--------------|--------------|
| Feb 25, 2021 12:22:16.032483101 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.111545086 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.111645937 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.330151081 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.330543995 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.411638021 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.411660910 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.412049055 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.491178989 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.536336899 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.618381977 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.618442059 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.618484020 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.618515968 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.618598938 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.618653059 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.664922953 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.746551037 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.796453953 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.810801983 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.889812946 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.891663074 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:16.972093105 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:16.973011971 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.063858032 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:17.065093040 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.151715994 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:17.152304888 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.239497900 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:17.239990950 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.321471930 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:17.323180914 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.323326111 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.323971033 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.324101925 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |
| Feb 25, 2021 12:22:17.403855085 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:17.404289007 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:18.069082975 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  |
| Feb 25, 2021 12:22:18.109025955 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 |

### UDP Packets

| Timestamp                           | Source Port | Dest Port | Source IP   | Dest IP     |
|-------------------------------------|-------------|-----------|-------------|-------------|
| Feb 25, 2021 12:20:35.466200113 CET | 54531       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:35.519671917 CET | 53          | 54531     | 8.8.8.8     | 192.168.2.4 |

| Timestamp                           | Source Port | Dest Port | Source IP   | Dest IP     |
|-------------------------------------|-------------|-----------|-------------|-------------|
| Feb 25, 2021 12:20:36.660303116 CET | 49714       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:36.709070921 CET | 53          | 49714     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:36.863770962 CET | 58028       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:36.924093962 CET | 53          | 58028     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:38.031158924 CET | 53097       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:38.080015898 CET | 53          | 53097     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:39.030683041 CET | 49257       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:39.079600096 CET | 53          | 49257     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:40.288960934 CET | 62389       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:40.349018097 CET | 53          | 62389     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:41.962757111 CET | 49910       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:42.015674114 CET | 53          | 49910     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:43.185733080 CET | 55854       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:43.238775969 CET | 53          | 55854     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:45.527916908 CET | 64549       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:45.578366041 CET | 53          | 64549     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:47.279995918 CET | 63153       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:47.331563950 CET | 53          | 63153     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:48.540069103 CET | 52991       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:48.589719057 CET | 53          | 52991     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:49.871844053 CET | 53700       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:49.934281111 CET | 53          | 53700     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:51.045453072 CET | 51726       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:51.094162941 CET | 53          | 51726     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:51.841162920 CET | 56794       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:51.890017033 CET | 53          | 56794     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:53.079277039 CET | 56534       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:53.129333019 CET | 53          | 56534     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:54.201761961 CET | 56627       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:54.260245085 CET | 53          | 56627     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:55.025892019 CET | 56621       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:55.086498976 CET | 53          | 56621     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:20:56.517249107 CET | 63116       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:20:56.568813086 CET | 53          | 63116     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:00.983846903 CET | 64078       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:01.036426067 CET | 53          | 64078     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:08.085619926 CET | 64801       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:08.138427973 CET | 53          | 64801     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:24.894157887 CET | 61721       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:24.956551075 CET | 53          | 61721     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:25.540385962 CET | 51255       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:25.600578070 CET | 53          | 51255     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:26.285353899 CET | 61522       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:26.296955199 CET | 52337       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:26.347690105 CET | 53          | 52337     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:26.349694967 CET | 53          | 61522     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:26.801425934 CET | 55046       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:26.858725071 CET | 53          | 55046     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:27.302660942 CET | 49612       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:27.377688885 CET | 53          | 49612     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:28.015033960 CET | 49285       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:28.072329044 CET | 53          | 49285     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:28.658046007 CET | 50601       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:28.717907906 CET | 53          | 50601     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:29.442985058 CET | 60875       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:29.500087023 CET | 53          | 60875     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:30.367633104 CET | 56448       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:30.416379929 CET | 53          | 56448     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:30.707478046 CET | 59172       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:30.775352001 CET | 53          | 59172     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:30.905088902 CET | 62420       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:30.965547085 CET | 53          | 62420     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:43.019121885 CET | 60579       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:43.038861990 CET | 50183       | 53        | 192.168.2.4 | 8.8.8.8     |

| Timestamp                           | Source Port | Dest Port | Source IP   | Dest IP     |
|-------------------------------------|-------------|-----------|-------------|-------------|
| Feb 25, 2021 12:21:43.068176985 CET | 53          | 60579     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:43.110400915 CET | 53          | 50183     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:21:50.055668116 CET | 61531       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:21:50.117507935 CET | 53          | 61531     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:22:15.870568991 CET | 49228       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:22:15.928117037 CET | 53          | 49228     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:22:15.954482079 CET | 59794       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:22:16.011673927 CET | 53          | 59794     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:22:16.998469114 CET | 55916       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:22:17.047694921 CET | 53          | 55916     | 8.8.8.8     | 192.168.2.4 |
| Feb 25, 2021 12:22:19.553073883 CET | 52752       | 53        | 192.168.2.4 | 8.8.8.8     |
| Feb 25, 2021 12:22:19.628139019 CET | 53          | 52752     | 8.8.8.8     | 192.168.2.4 |

## DNS Queries

| Timestamp                           | Source IP   | Dest IP | Trans ID | OP Code            | Name            | Type           | Class       |
|-------------------------------------|-------------|---------|----------|--------------------|-----------------|----------------|-------------|
| Feb 25, 2021 12:22:15.870568991 CET | 192.168.2.4 | 8.8.8.8 | 0x1e09   | Standard query (0) | smtp.yandex.com | A (IP address) | IN (0x0001) |
| Feb 25, 2021 12:22:15.954482079 CET | 192.168.2.4 | 8.8.8.8 | 0xc40    | Standard query (0) | smtp.yandex.com | A (IP address) | IN (0x0001) |

## DNS Answers

| Timestamp                           | Source IP | Dest IP     | Trans ID | Reply Code   | Name            | CName          | Address      | Type                   | Class       |
|-------------------------------------|-----------|-------------|----------|--------------|-----------------|----------------|--------------|------------------------|-------------|
| Feb 25, 2021 12:22:15.928117037 CET | 8.8.8.8   | 192.168.2.4 | 0x1e09   | No error (0) | smtp.yandex.com | smtp.yandex.ru |              | CNAME (Canonical name) | IN (0x0001) |
| Feb 25, 2021 12:22:15.928117037 CET | 8.8.8.8   | 192.168.2.4 | 0x1e09   | No error (0) | smtp.yandex.ru  |                | 77.88.21.158 | A (IP address)         | IN (0x0001) |
| Feb 25, 2021 12:22:16.011673927 CET | 8.8.8.8   | 192.168.2.4 | 0xc40    | No error (0) | smtp.yandex.com | smtp.yandex.ru |              | CNAME (Canonical name) | IN (0x0001) |
| Feb 25, 2021 12:22:16.011673927 CET | 8.8.8.8   | 192.168.2.4 | 0xc40    | No error (0) | smtp.yandex.ru  |                | 77.88.21.158 | A (IP address)         | IN (0x0001) |

## SMTP Packets

| Timestamp                           | Source Port | Dest Port | Source IP    | Dest IP      | Commands  |
|-------------------------------------|-------------|-----------|--------------|--------------|---|
| Feb 25, 2021 12:22:16.330151081 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  | 220 vla3-23c3b031fed5.qloud-c.yandex.net ESMTP (Want to use Yandex.Mail for your domain? Visit http://pdd.yandex.ru)  |
| Feb 25, 2021 12:22:16.330543995 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 | EHLO 305090   |
| Feb 25, 2021 12:22:16.411660910 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  | 250-vla3-23c3b031fed5.qloud-c.yandex.net<br>250-8BITMIME<br>250-PIPELINING<br>250-SIZE 42991616<br>250-STARTTLS<br>250-AUTH LOGIN PLAIN XOAUTH2<br>250-DSN<br>250 ENHANCEDSTATUSCODES |
| Feb 25, 2021 12:22:16.412049055 CET | 49765       | 587       | 192.168.2.4  | 77.88.21.158 | STARTTLS  |
| Feb 25, 2021 12:22:16.491178989 CET | 587         | 49765     | 77.88.21.158 | 192.168.2.4  | 220 Go ahead  |

## Code Manipulations

## Statistics

## System Behavior

## Analysis Process: Swift doc. ZD.1.19022021\_PDF.exe PID: 7020 Parent PID: 5968

### General

|                               |   |
|-------------------------------|---|
| Start time:                   | 12:20:42  |
| Start date:                   | 25/02/2021  |
| Path:                         | C:\Users\user\Desktop\Swift doc. ZD.1.19022021_PDF.exe  |
| Wow64 process (32bit):        | true  |
| Commandline:                  | 'C:\Users\user\Desktop\Swift doc. ZD.1.19022021_PDF.exe'  |
| Imagebase:                    | 0xe00000  |
| File size:                    | 770048 bytes  |
| MD5 hash:                     | 5679C66FD0EBCD6B8702C5C9E8F1ECB6  |
| Has elevated privileges:      | true  |
| Has administrator privileges: | true  |
| Programmed in:                | .Net C# or VB.NET   |
| Yara matches:                 | <ul style="list-style-type: none"> <li>Rule: JoeSecurity_AgentTesla_1, Description: Yara detected AgentTesla, Source: 00000001.00000002.922521029.000000000448B000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_AgentTesla_1, Description: Yara detected AgentTesla, Source: 00000001.00000002.923663679.00000000063E0000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_AntiVM_3, Description: Yara detected AntiVM_3, Source: 00000001.00000002.917324348.0000000003241000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_CredentialStealer, Description: Yara detected Credential Stealer, Source: 00000001.00000002.917324348.0000000003241000.00000004.00000001.sdmp, Author: Joe Security</li> </ul> |
| Reputation:                   | low   |

### File Activities

#### File Created

| File Path                     | Access                                    | Attributes | Options  | Completion            | Count | Source Address | Symbol  |
|-------------------------------|---|------------|--|-----------------------|-------|----------------|---------|
| C:\Users\user                 | read data or list directory   synchronize | device     | directory file   synchronous io non alert   open for backup ident   open reparse point | object name collision | 1     | 6D3DCF06       | unknown |
| C:\Users\user\AppData\Roaming | read data or list directory   synchronize | device     | directory file   synchronous io non alert   open for backup ident   open reparse point | object name collision | 1     | 6D3DCF06       | unknown |

#### File Read

| File Path  | Offset  | Length | Completion      | Count | Source Address | Symbol   |
|--|---------|--------|-----------------|-------|----------------|----------|
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 4095   | success or wait | 1     | 6D3B5705       | unknown  |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 6135   | success or wait | 1     | 6D3B5705       | unknown  |
| C:\Windows\assembly\NativeImages_v4.0.30319_32\mscorlib\1a152fe02a317a77ae3e36903305e8ba6\mscorlib.ni.dll.aux                        | unknown | 176    | success or wait | 1     | 6D3103DE       | ReadFile |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 4095   | success or wait | 1     | 6D3BCA54       | ReadFile |
| C:\Windows\assembly\NativeImages_v4.0.30319_32\System\4f0a7eefa3cd3e0ba98b5ebddbc72e6\System.ni.dll.aux                              | unknown | 620    | success or wait | 1     | 6D3103DE       | ReadFile |
| C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Configuration\8d67d92724ba494b6c7fd089d6f25b48\System.Configuration.ni.dll.aux | unknown | 864    | success or wait | 1     | 6D3103DE       | ReadFile |
| C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Core\f1d8480152e0da9a60ad49c6d16a3b6d\System.Core.ni.dll.aux                   | unknown | 900    | success or wait | 1     | 6D3103DE       | ReadFile |
| C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Xml\b219d4630d26b88041b59c21e8e2b95c\System.Xml.ni.dll.aux                     | unknown | 748    | success or wait | 1     | 6D3103DE       | ReadFile |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 4095   | success or wait | 1     | 6D3B5705       | unknown  |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 8171   | end of file     | 1     | 6D3B5705       | unknown  |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 4096   | success or wait | 1     | 6C221B4F       | ReadFile |
| C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config  | unknown | 4096   | end of file     | 1     | 6C221B4F       | ReadFile |
| C:\Program Files (x86)\Downloader\config\database.script   | unknown | 4096   | success or wait | 1     | 6C221B4F       | ReadFile |
| C:\Program Files (x86)\Downloader\config\database.script   | unknown | 4096   | end of file     | 1     | 6C221B4F       | ReadFile |

| File Path   | Offset  | Length | Completion      | Count | Source Address | Symbol   |
|---|---------|--------|-----------------|-------|----------------|----------|
| C:\Users\user\AppData\Local\Microsoft\Credentials\DFBE70A7E5CC19A398EBF1B96859CE5D  | unknown | 11152  | success or wait | 1     | 6C221B4F       | ReadFile |
| C:\Users\user\AppData\Roaming\Microsoft\Protect\S-1-5-21-3853321935-2125563209-4053062332-1002\2f200813-6b95-4fa2-9471-1d5bf82d4fe6 | unknown | 4096   | success or wait | 1     | 6C221B4F       | ReadFile |
| C:\Users\user\AppData\Local\Microsoft\Credentials\DFBE70A7E5CC19A398EBF1B96859CE5D  | unknown | 11152  | success or wait | 1     | 6C221B4F       | ReadFile |
| C:\Users\user\AppData\Local\Google\Chrome\User Data\Default>Login Data  | unknown | 40960  | success or wait | 1     | 6C221B4F       | ReadFile |

## Disassembly

### Code Analysis