# J〇eSandboxCloud"쁭 



ID: 330287
Sample Name: SWIFT.doc
Cookbook:
defaultwindowsofficecookbook.jbs
Time: 17:48:39
Date: 14/12/2020
Version: 31.0.0 Red Diamond

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Analysis Process: izux978537.scr PID: 3016 Parent PID: 2668 ..... 31
General ..... 31
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Analysis Process: vbc.exe PID: 1492 Parent PID: 3016 ..... 33
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## Analysis Report SWIFT.doc

## Overview

## General Information



Detection


## Signatures



Classification


## Startup

- System is w7x64
- WINWORD.EXE (PID: 2312 cmdline: 'C:IProgram FilesIMicrosoft Officeloffice14IWINWORD.EXE' /Automation -Embedding MD5: 95C38D04597050285A18F66039EDB456)
- $\sqrt{\sqrt{\alpha}}$ EQNEDT32.EXE (PID: 2488 cmdline: 'C:IProgram FilesICommon FilesIMicrosoft SharedIEQUATIONIEQNEDT32.EXE' -Embedding MD5: A87236E214F6D42A65F5DEDAC816AEC8)
- izux978537.scr (PID: 2668 cmdline: C:IUsersluserlAppDatalRoaminglizux978537.scr MD5: 7DA4F5E17791A774131C3C97538A2495)
- $\square$ izux978537.scr (PID: 2308 cmdline: C:IUsersluserlAppDatalRoaminglizux978537.scr MD5: 7DA4F5E17791A774131C3C97538A2495)
-     - izux978537.scr (PID: 3016 cmdline: C:IUsersluserlAppDatalRoaminglizux978537.scr MD5: 7DA4F5E17791A774131C3C97538A2495)
- vbc.exe (PID: 1492 cmdline: 'C:IWindowsIMicrosoft.NETIFrameworklv2.0.50727lvbc.exe' /stext 'C:IUsersluserlAppDatalLocallTempltmp2915.tmp' MD5: 1672D0478049ABDAF0197BE64A7F867F)
- vbc.exe (PID: 948 cmdline: 'C:IWindowsIMicrosoft.NET\Frameworklv2.0.50727lvbc.exe' /stext 'C:IUsersluserlAppDatalLocallTempltmp2916.tmp' MD5: 1672D0478049ABDAF0197BE64A7F867F)
- $\sqrt{\frac{1}{\alpha} \text { met }}$ EQNEDT32.EXE (PID: 2976 cmdline: 'C:IProgram FilesICommon FilesIMicrosoft SharedIEQUATIONIEQNEDT32.EXE' -Embedding MD5: A87236E214F6D42A65F5DEDAC816AEC8)
- cleanup


## Malware Configuration

Threatname: HawkEye

```
"Modules": [
    "mailpv"
J,
    "Version": ""
}
```


## Yara Overview

## Memory Dumps



| Source | Rule | Description | Author | Strings |
| :---: | :---: | :---: | :---: | :---: |
| 00000009.00000003 .2226541368 .00000000043 35000.00000004.00000001.sdmp | JoeSecurity_MailPassView | Yara detected MailPassView | Joe Security |  |
| 00000009.00000002.2376684630.0000000002C 3A000.00000004.00000001.sdmp | JoeSecurity_MailPassView | Yara detected MailPassView | Joe Security |  |
| 00000009.00000002 .2371163613 .00000000002 C0000.00000004.00000001.sdmp | APT_NK_BabyShark_KimJ oingRAT_Apr19_1 | Detects <br> BabyShark <br> KimJongRAT | Florian Roth | - 0x134d2:\$a1: logins.json <br> - 0x13432:\$s3: SELECT id, hostname, httpRealm, forms ubmitURL, usernameField, passwordField, encryptedU sername, encryptedPassword FROM moz_login <br> - 0x13c56:\$s4: Imozsqlite3.dII <br> - $0 \times 124 \mathrm{c} 6$ :\$s5: SMTP Password |
| 00000009.00000002 .2371163613 .00000000002 C0000.00000004.00000001.sdmp | JoeSecurity_MailPassView | Yara detected MailPassView | Joe Security |  |
| Click to see the 19 entries |  |  |  |  |
| Unpacked PEs |  |  |  |  |
| Source | Rule | Description | Author | Strings |
| 11.2.vbc.exe.400000.0.raw.unpack | APT_NK_BabyShark_KimJ oingRAT_Apr19_1 | Detects <br> BabyShark <br> KimJongRAT | Florian Roth | - 0x147b0:\$a1: logins.json <br> - $0 \times 14710: \$ s 3$ : SELECT id, hostname, httpRealm, formS ubmitURL, usernameField, passwordField, encryptedU sername, encryptedPassword FROM moz_login <br> - 0x14f34:\$s4: Imozsqlite3.dII <br> - 0x137a4:\$s5: SMTP Password |
| 11.2.vbc.exe.400000.0.raw.unpack | JoeSecurity_MailPassView | Yara detected MailPassView | Joe Security |  |
| 10.2.vbc.exe.400000.0.raw.unpack | APT_NK_BabyShark_KimJ oingRAT_Apr19_1 | Detects <br> BabyShark <br> KimJongRAT | Florian Roth | - $0 \times 147 \mathrm{bo} 0$ :\$a1: logins.json <br> - $0 \times 14710: \$ s 3$ : SELECT id, hostname, httpRealm, formS ubmitURL, usernameField, passwordField, encryptedU sername, encryptedPassword FROM moz_login <br> - 0x14f34:\$s4: Imozsqlite3.dII <br> - 0x137a4:\$s5: SMTP Password |
| 10.2.vbc.exe.400000.0.raw.unpack | JoeSecurity_MailPassView | Yara detected MailPassView | Joe Security |  |
| 9.2.izux978537.scr.2c0000.0.unpack | APT_NK_BabyShark_KimJ oingRAT_Apr19_1 | Detects <br> BabyShark <br> KimJongRAT | Florian Roth | - 0x116d2:\$a1: logins.json <br> - 0x11632:\$s3: SELECT id, hostname, httpRealm, formS ubmitURL, usernameField, passwordField, encryptedU sername, encryptedPassword FROM moz_login <br> - 0x11e56:\$s4: Imozsqlite3.dII <br> - $0 \times 106 c 6: \$ 55$ : SMTP Password |
| Click to see the 10 entries |  |  |  |  |

## Sigma Overview

## System Summary:

Sigma detected: Droppers Exploiting CVE-2017-11882
Sigma detected: EQNEDT32.EXE connecting to internet

## Signature Overview



Antivirus detection for URL or domain
Found malware configuration
Multi AV Scanner detection for submitted file

Exploits:

Office equation editor starts processes (likely CVE 2017-11882 or CVE-2018-0802)

Key, Mouse, Clipboard, Microphone and Screen Capturing:

Yara detected HawkEye Keylogger

System Summary:

Malicious sample detected (through community Yara rule)
Office equation editor drops PE file

## Data Obfuscation:

.NET source code contains potential unpacker

## Persistence and Installation Behavior:



Drops PE files with a suspicious file extension

Malware Analysis System Evasion:

| Yara detected AntiVM_3 |
| :--- |
| 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) |

HIPS / PFW / Operating System Protection Evasion:
.NET source code references suspicious native API functions
Allocates memory in foreign processes
Injects a PE file into a foreign processes
Sample uses process hollowing technique
Writes to foreign memory regions

## Stealing of Sensitive Information:

| Yara detected HawkEye Keylogger |
| :--- |
| Yara detected M00nD3v Logger |
| Yara detected MailPassView |
| Searches for Windows Mail specific files |
| Tries to harvest and steal browser information (history, passwords, etc) |
| Tries to steal Instant Messenger accounts or passwords |
| Tries to steal Mail credentials (via file access) |

## Mitre Att\&ck Matrix

| Initial Access | Execution | Persistence | Privilege <br> Escalation | Defense Evasion | Credential <br> Access | Discovery | Lateral Movement | Collection | Exfiltration | Command and Control |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valid Accounts | Windows Management Instrumentation 1 1. 1 | Application Shimming 1 | Application Shimming 1 | Disable or Modify Tools 1 | OS <br> Credential Dumping 1 | Account Discovery 1 | Remote Services | Archive <br> Collected <br> Data 11 | Exfiltration <br> Over Other <br> Network <br> Medium | Ingress Tool Transfer $\qquad$ |
| Default Accounts | Native API 11 | Boot or <br> Logon <br> Initialization <br> Scripts | Process <br> Injection 412 | Deobfuscate/Decode <br> Files or <br> Information 11 | Credentials <br> in <br> Registry 2 | File and Directory Discovery 13 | Remote Desktop Protocol | Data from Local System 1 | Exfiltration Over <br> Bluetooth | Encrypted Channel 1 |
| Domain Accounts | Shared Modules 1 | Logon Script (Windows) | Logon Script (Windows) | Obfuscated Files or Information 3 | Credentials <br> In Files 1 | System Information Discovery 15 | SMB/Windows Admin Shares | Email <br> Collection | Automated Exfiltration | Remote Acce <br> Software 1 |
| Local <br> Accounts | Exploitation for Client <br> Execution 13 | Logon Script (Mac) | Logon Script (Mac) | Software <br> Packing 11 | NTDS | Security Software Discovery 22 | Distributed Component Object Model | Clipboard Data 1 | Scheduled Transfer | Non- <br> Application <br> Layer <br> Protocol 2 |
| Cloud Accounts | Cron | Network Logon Script | Network Logon Script | Masquerading 11 | LSA Secrets | Virtualization/Sandbox <br> Evasion 13 | SSH | Keylogging | Data <br> Transfer <br> Size Limits | Application <br> Layer <br> Protocol 2 |
| Replication <br> Through <br> Removable <br> Media | Launchd | Rc.common | Rc.common | Virtualization/Sandbox Evasion 13 | Cached <br> Domain <br> Credentials | Process Discovery 2 | VNC | GUI Input Capture | Exfiltration <br> Over C2 <br> Channel | Multiband <br> Communicati |
| External <br> Remote <br> Services | Scheduled Task | Startup Items | Startup Items | Process <br> Injection 412 | DCSync | System Owner/User Discovery 1 | Windows <br> Remote <br> Management | Web Portal Capture | Exfiltration <br> Over <br> Alternative <br> Protocol | Commonly Used Port |
| Drive-by Compromise | Command and Scripting Interpreter | Scheduled Task/Job | Scheduled <br> Task/Job | Indicator Removal from Tools | Proc Filesystem | Remote System Discovery 1 | Shared Webroot | Credential API Hooking | Exfiltration <br> Over <br> Symmetric <br> Encrypted <br> Non-C2 <br> Protocol | Application Layer Protoci |

## 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 | 44\% | Virustotal |  | Browse |
| SWIFT.doc | 48\% | ReversingLabs | Document- <br> RTF.Exploit.CVE- <br> 2017-11882 |  |

## Dropped Files

No Antivirus matches

## Unpacked PE Files

| Source | Detection | Scanner | Label | Link | Download |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9.0.izux978537.scr.bc0000.0.unpack | 100\% | Avira | HEUR/AGEN. 1100765 |  | Download File |
| 6.2.izux978537.scr.bc0000.0.unpack | 100\% | Avira | HEUR/AGEN. 1100765 |  | Download File |
| 9.2.izux978537.scr.bc0000.2.unpack | 100\% | Avira | HEUR/AGEN. 1100765 |  | Download File |
| 4.0.izux978537.scr.bc0000.0.unpack | 100\% | Avira | HEUR/AGEN. 1100765 |  | Download File |
| 9.2.izux978537.scr.400000.1.unpack | 100\% | Avira | TR/Dropper.Gen |  | Download File |
| 6.0.izux978537.scr.bc0000.0.unpack | 100\% | Avira | HEUR/AGEN. 1100765 |  | Download File |

## Domains

## URLs

| Source | Detection | Scanner | Label | Link |
| :---: | :---: | :---: | :---: | :---: |
| http://crl.sectigo.com/SectigoRSATimeStampingCA.crlot | 0\% | URL Reputation | safe |  |
| http://crl.sectigo.com/SectigoRSATimeStampingCA.crlOt | 0\% | URL Reputation | safe |  |
| http://crl.sectigo.com/SectigoRSATimeStampingCA.crlot | 0\% | URL Reputation | safe |  |
| http://mangero.ga/izux/hktestfile.scr | 100\% | Avira URL Cloud | malware |  |
| http://https://a.pomf.cat/ | 0\% | Avira URL Cloud | safe |  |
| http://pomf.cat/upload.php\&https://a.pomf.cat/ | 0\% | Avira URL Cloud | safe |  |
| http://wellformedweb.org/CommentAPI/ | 0\% | URL Reputation | safe |  |
| http://wellformedweb.org/CommentAPI/ | 0\% | URL Reputation | safe |  |
| http://wellformedweb.org/CommentAPI/ | 0\% | URL Reputation | safe |  |
| http://pomf.cat/upload.php | 0\% | Avira URL Cloud | safe |  |
| http://ocsp.sectigo.com0 | 0\% | URL Reputation | safe |  |
| http://ocsp.sectigo.com0 | 0\% | URL Reputation | safe |  |
| http://ocsp.sectigo.com0 | 0\% | URL Reputation | safe |  |
| http://crt.sectigo.com/SectigoRSATimeStampingCA.crto\# | 0\% | URL Reputation | safe |  |
| http://crt.sectigo.com/SectigoRSATimeStampingCA.crto\# | 0\% | URL Reputation | safe |  |
| http://crt.sectigo.com/SectigoRSATimeStampingCA.crto\# | 0\% | URL Reputation | safe |  |
| http://www.iis.fhg.de/audioPA | 0\% | URL Reputation | safe |  |
| http://www.iis.fhg.de/audioPA | 0\% | URL Reputation | safe |  |
| http://www.iis.fhg.de/audioPA | 0\% | URL Reputation | safe |  |
| http://https://m00nd3v.com/M00nD3v/HawkEyeDecrypt/BouncyCastle.Crypto.dll | 0\% | Avira URL Cloud | safe |  |
| http://https://sectigo.com/CPSOD | 0\% | URL Reputation | safe |  |
| http://https://sectigo.com/CPSOD | 0\% | URL Reputation | safe |  |
| http://https://sectigo.com/CPSOD | 0\% | URL Reputation | safe |  |
| http://computername/printers/printername/.printer | 0\% | Avira URL Cloud | safe |  |
| http://treyresearch.net | 0\% | URL Reputation | safe |  |
| http://treyresearch.net | 0\% | URL Reputation | safe |  |
| http ://treyresearch.net | 0\% | URL Reputation | safe |  |
| http://https://m00nd3v.com/M00nD3v/HawkEyeDecrypt/BouncyCastle.Crypto.dll;HawkEye | 0\% | Avira URL Cloud | safe |  |
| http://pomf.cat/upload.phpCContent-Disposition: | 0\% | Avira URL Cloud | safe |  |

## Domains and IPs

## Contacted Domains

| Name | IP |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| mangero.ga | 46.173 .221 .33 | Active | Malicious | Antivirus Detection | Reputation |

## Contacted URLs

| Name | Malicious | Antivirus Detection | Reputation |
| :---: | :---: | :---: | :---: |
| http://mangero.ga/izux/hktestfile.scr | true | - Avira URL Cloud: malware | unknown |

## URLs from Memory and Binaries

| Name | Source | Malicious | Antivirus Detection | Reputation |
| :---: | :---: | :---: | :---: | :---: |
| http://crl.sectigo.com/SectigoRSATimeStampingCA.crlot | hktestfile[1].scr.2.dr | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://https://a.pomf.cat/ | izux978537.scr, 00000009.00000 002.2375979476.0000000002B5B00 0.00000004.00000001.sdmp | false | - Avira URL Cloud: safe | unknown |
| http://pomf.cat/upload.php\&https://a.pomf.cat/ | izux978537.scr, 00000009.00000 002.2371242328 .000000000040200 0.00000040.00000001.sdmp | false | - Avira URL Cloud: safe | unknown |
| http://wellformedweb.org/CommentAPI/ | izux978537.scr, 00000009.00000 002.2379604509.000000000A60000 0.00000002.00000001.sdmp | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://dyn.com/dns/ | izux978537.scr, 00000009.00000 002.2375979476 .0000000002 B 5 B00 0.00000004.00000001.sdmp | false |  | high |


| Name | Source | Malicious | Antivirus Detection | Reputation |
| :---: | :---: | :---: | :---: | :---: |
| http://pomf.cat/upload.php | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & \text { 002.2375979476.0000000002B5B00 } \\ & 0.00000004 .00000001 . s d m p \end{aligned}$ | false | - Avira URL Cloud: safe | unknown |
| http://ocsp.sectigo.com0 | hktestfile[1].scr.2.dr | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://crt.sectigo.com/SectigoRSATimeStampingCA.crt0\# | hktestfile[1].scr.2.dr | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://www.iis.fhg.de/audioPA | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & 002.2379604509 .000000000 \mathrm{~A} 60000 \\ & 0.00000002 .00000001 . \mathrm{sdmp} \end{aligned}$ | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| ```nttp:// https://m00nd3v.com/M00nD3v/HawkEyeDecrypt/BouncyCastl e.Crypto.dll``` | izux978537.scr, 00000009.00000 $002.2375869139 .0000000002 B 3100$ 0.00000004.00000001.sdmp, izux 978537.scr, 00000009.00000002. 2375979476.0000000002B5B000.00 000004.00000001.sdmp | false | - Avira URL Cloud: safe | unknown |
| http://https://sectigo.com/CPSOD | hktestfile[1].scr.2.dr | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://computername/printers/printername/.printer | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & 002.2379604509 .000000000 \mathrm{~A} 60000 \\ & 0.00000002 .00000001 . \mathrm{sdmp} \end{aligned}$ | false | - Avira URL Cloud: safe | low |
| http://www.nirsoft.net/ | vbc.exe, 0000000B.00000002.224 2831512.0000000000400000 .00000 040.00000001.sdmp | false |  | high |
| http://treyresearch.net | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & 002.2379604509 .000000000 \mathrm{~A} 60000 \\ & 0.00000002 .00000001 . \mathrm{sdmp} \end{aligned}$ | false | - URL Reputation: safe <br> - URL Reputation: safe <br> - URL Reputation: safe | unknown |
| http://bot.whatismyipaddress.com/ | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & 002.2375979476 .0000000002 \mathrm{~B} 5 \mathrm{B00} \\ & 0.00000004 .00000001 . \mathrm{sdmp} \end{aligned}$ | false |  | high |
| http:// <br> https://m00nd3v.com/M00nD3v/HawkEyeDecrypt/BouncyCastl e.Crypto.dll;HawkEye | $\begin{aligned} & \text { izux978537.scr, 00000009.00000 } \\ & 002.2375979476 .0000000002 \mathrm{~B} 5 \mathrm{~B} 00 \\ & 0.00000004 .00000001 . \mathrm{sdmp} \end{aligned}$ | false | - Avira URL Cloud: safe | unknown |
| http://pomf.cat/upload.phpCContent-Disposition: | izux978537.scr, 00000009.00000 002.2375979476.0000000002B5B00 0.00000004.00000001.sdmp | false | - Avira URL Cloud: safe | unknown |

Contacted IPs


Public

| IP | Domain | Country | Flag | ASN | ASN Name | Malicious |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 46.173 .221 .33 | unknown | Russian Federation |  | 56364 | GPI-ASRU |  |

## General Information

| Joe Sandbox Version: | 31.0.0 Red Diamond |
| :---: | :---: |
| Analysis ID: | 330287 |
| Start date: | 14.12.2020 |
| Start time: | 17:48:39 |
| Joe Sandbox Product: | CloudBasic |
| Overall analysis duration: | Oh 8m 9s |
| Hypervisor based Inspection enabled: | false |
| Report type: | light |
| Sample file name: | SWIFT.doc |
| Cookbook file name: | defaultwindowsofficecookbook.jbs |
| Analysis system description: | Windows $7 \times 64$ SP1 with Office 2010 SP2 (IE 11, FF52, Chrome 57, Adobe Reader DC 15, Flash 25.0.0.127, Java 8 Update 121, .NET 4.6.2) |
| Number of analysed new started processes analysed: | 12 |
| 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: | - HCA enabled <br> - EGA enabled <br> - HDC enabled <br> - AMSI enabled |
| Analysis Mode: | default |
| Analysis stop reason: | Timeout |
| Detection: | MAL |
| Classification: | mal100.phis.troj.spyw.expl.evad.winDOC@13/9@1/1 |
| EGA Information: | Failed |
| HDC Information: | - Successful, ratio: $97.1 \%$ (good quality ratio $94.3 \%$ ) <br> - Quality average: $85.8 \%$ <br> - Quality standard deviation: $23 \%$ |
| HCA Information: | - Successful, ratio: $90 \%$ <br> - Number of executed functions: 0 <br> - Number of non-executed functions: 0 |
| Cookbook Comments: | - Adjust boot time <br> - Enable AMSI <br> - Found application associated with file extension: .doc <br> - Found Word or Excel or PowerPoint or XPS Viewer <br> - Attach to Office via COM <br> - Active ActiveX Object <br> - Scroll down <br> - Close Viewer |
| Warnings: | Show All <br> - Exclude process from analysis (whitelisted): dllhost.exe, WerFault.exe, svchost.exe <br> - TCP Packets have been reduced to 100 <br> - Report size exceeded maximum capacity and may have missing behavior information. <br> - Report size getting too big, too many NtAllocateVirtualMemory calls found. <br> - Report size getting too big, too many NtOpenKeyEx calls found. <br> - Report size getting too big, too many NtQueryDirectoryFile calls found. <br> - Report size getting too big, too many NtQueryValueKey calls found. |

## Simulations

## Behavior and APIs

| Time | Type | Description |
| :--- | :--- | :--- |
| $17: 49: 41$ | API Interceptor | $298 x$ Sleep call for process: EQNEDT32.EXE modified |
| $17: 49: 47$ | API Interceptor | $501 \times$ Sleep call for process: izux978537.scr modified |
| $17: 50: 51$ | API Interceptor | $15 \times$ Sleep call for process: vbc.exe modified |

## Joe Sandbox View / Context

| Match | Associated Sample Name / URL | SHA 256 | Detection | Link | Context |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 46.173.221.33 | purchase request sheet.doc | Get hash | malicious | Browse | - mangero.g a/cax/cax.exe |
|  | order list.doc | Get hash | malicious | Browse | - mangero.g <br> a/fortysev en/fortyse ven.scr |
|  | PMA1911003.doc | Get hash | malicious | Browse | - mangero.g a/kingtrou px/kingtro upx.scr |
| Domains |  |  |  |  |  |
| Match | Associated Sample Name / URL | SHA 256 | Detection | Link | Context |
| mangero.ga | purchase request sheet.doc | Get hash | malicious | Browse | - 46.173.221.33 |
|  | order list.doc | Get hash | malicious | Browse | - 46.173.221.33 |
|  | PMA1911003.doc | Get hash | malicious | Browse | - 46.173.221.33 |
| ASN |  |  |  |  |  |
| Match | Associated Sample Name / URL | SHA 256 | Detection | Link | Context |
| GPI-ASRU | purchase request sheet.doc | Get hash | malicious | Browse | - 46.173.221.33 |
|  | order list.doc | Get hash | malicious | Browse | - 46.173.221.33 |
|  | PMA1911003.doc | Get hash | malicious | Browse | - 46.173.221.33 |
|  | 290453721.x\|s | Get hash | malicious | Browse | - 46.173.210.8 |
|  | 290453721.x\|s | Get hash | malicious | Browse | - 46.173.210.8 |

## JA3 Fingerprints

No context

## Dropped Files

No context

## Created / dropped Files

| C:IUsersluserlAppDatalLocallMicrosoftlWindowsITemporary Internet FileslContent.IE5IZAE7RW1Plhktestfile[1].scr |  |
| :---: | :---: |
| Process: | C:IProgram Files\Common Files\Microsoft Shared\EQUATIONIEQNEDT32.EXE |
| File Type: | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows |
| Category: | downloaded |
| Size (bytes): | 7447752 |
| Entropy (8bit): | 5.138250665474018 |
| Encrypted: | false |
| SSDEEP: | 98304:eUYsXqrhgjzKQYaqTvH6nn0GRj27SchULsKSNiT3I0jibPQMpG:FqrwaPQj2hawl |
| MD5: | 7DA4F5E17791A774131C3C97538A2495 |
| SHA1: | 552B4A357B259935A35B06D040D7F2E3205C8E42 |
| SHA-256: | AC8EF770D70DA42EA56D5B15FB5DB0BE89AE9250AC78B2BFD493843A50399A19 |
| SHA-512: | 4C0460E29457F9910F5EBB4090FBAF1E29D28E4D2ABB5F63DBE83061CDB306E0C545DB97662F6A380E438D615AD3B9F43EEC8D7B1F9B57EECFF63EF45557CE 7B |
| Copyright null 2020 Page 13 of 34 |  |


| C:IUsersluserlAppDatalLocallMicrosoftlWindowsITemporary Internet FilesIContent.IE5IZAE7RW1PIhktestfile[1].scr |  |
| :---: | :---: |
| Malicious: | true |
| Reputation: | low |
| IE Cache URL: | http://mangero.ga/izux/hktestfile.scr |
| Preview: |  |



| Process: | C:\Program Files\Microsoft OfficelOffice14IWINWORD.EXE |
| :---: | :---: |
| File Type: | data |
| Category: | dropped |
| Size (bytes): | 11988 |
| Entropy (8bit): | 3.522915830051191 |
| Encrypted: | false |
| SSDEEP: | 192:MGZWrNfluRdIp0ALuyIPWAepVVYrz9Q+gyf2Sj7g+u4OzM1kj:wrHuepOryIOYPBP7HOzM1kj |
| MD5: | ED4C38D3EA4025C9BBA22A2C89D7245E |
| SHA1: | 8500C4BB1AAB0B521D3854C9556F9714FCA54318 |
| SHA-256: | 63512F967A20556F2D9FF59393F676A3FE6E1FA0724FB63A794F7AF7D650F276 |
| SHA-512: | 71AD1150886AF517F39C05358A4E8701074E4C0B45D1C02993341498FFE9904FEBB12D3D5168A33C12A4C8F1D7C4F3E7816CE7357293BF90C4C9B0CE717AF658 |
| Malicious: | false |
| Reputation: | low |
| Preview: |  |

C:IUsersluserlAppDatalLocallTempl73f52833-e0b3-84b4-f8d3-07db0b3195f9

| Process: | C:IUsersluser\AppDatalRoaminglizux978537.scr |
| :--- | :--- |
| File Type: | ASCII text, with no line terminators |
| Category: | dropped |
| Size (bytes): | 64 |
| Entropy (8bit): | 5.140319531114784 |
| Encrypted: | false |
| SSDEEP: | $3: 91$ sdUBmRhys8m0uR1rrn:9eW4ys30m1 |
| MD5: | AB986688BB63AF782CAD2D87A92C93E3 |
| SHA1: | BDBF286D59A4B7898A17C52D17DBF2172163F35B |
| SHA-256: | A2B606F440BD3248A432F75747507B5A59AD1C9D5327A1A6ED6131BB9CC409AC |
| SHA-512: | C0DE1198EB7E0674E97E1A0770E0E394CCCC19A16B9E01B1C104AB762D78016DB5C87A478C33B87616C7D3F5D095535833497E66A2A1E84BCF12B2FED25B474 |
| Malicious: | false |
| Reputation: | low |
| Preview: | 6y8lxPKPPBIW+1duQx+1udgc8YpqENDI4Dt1IzqCDU/R9S7AL35y919NiQAPRZsN |

C:IUsersluserlAppDatalRoaminglMicrosoftlOfficelRecentISWIFT.LNK

| Process: | C:IProgram Files\Microsoft OfficelOffice14IWINWORD.EXE |
| :---: | :---: |
| File Type: | MS Windows shortcut, Item id list present, Points to a file or directory, Has Relative path, Archive, ctime=Wed Aug 26 14:08:15 2020, mtime=Wed Aug 26 14:08:15 2020, atime=Tue Dec 15 00:49:39 2020, length=1258700, window=hide |
| Category: | dropped |
| Size (bytes): | 1970 |
| Entropy (8bit): | 4.547116102220396 |
| Encrypted: | false |
| SSDEEP: | 48:80H/XT0jFHGRacojuQh20H/XTOjFHGRacojuQ/:8C/XojFmRhojuQh2C/XojFmRhojuQ/ |
| MD5: | 7457FB8646A6423F665D4F8C08B7849B |
| SHA1: | 386D33E660A47241A3FA2F8263191D39EE2E0095 |
| SHA-256: | EF16F973ED95215D10FBADA35945668E8D2B7DB488E62939AF84D1492BBB086C |
| SHA-512: | B5D18028524682730B15FA397CFE6B43A5713F458E891C2094E30358D39754B50467BE859A71709968072F6C8A4EE7859F37B050D008E4B2E4E4B3FBF8CA3BD5 |
| Malicious: | false |
| Reputation: | low |
| Preview: |  .2.1.8.1.3.....L.1......Q.y..user.8......QK.X.Q.y*...\&=...U...............A.I.b.u.s.....z.1......Q.y..Desktop.d......QK.X.Q.y*..._=...................D.e.s.k.t.o.p...@.s.h.e.I.I.3.2...d.I..,-.. 2 .1.7.6.9.....X.2..4...Q4. .SWIFT.doc.@.......Q.y.Q.y*...8....................S.W.I.F.T...d.o.c.......S..................8...[...........?J......C:IUsersl..\#..................II549163IUsers.userlDe sktopISWIFT.doc. ..........................I.D.e.s.k.t.o.p.I.S.W.I.F.T...d.o.c..............LB.)...Ag..............1SPS.XF.L8C....\&.m.m...........-...S.-.1.-.5.-.2.1.-.9.6.6.7.7.1.3.1.5.-.3.0.1.9 .4.0.5.6.3.7.-.3.6.7.3.3.6.4.7.7.-1.0.0.6...................X.......549163..........D_...3N...W...9F.C..........[D_...3N...W...9F.C..........[.................. |

C:IUsersluserlAppDatalRoaminglMicrosoftlOfficelRecentlindex.dat

| Process: | C:IProgram FilesIMicrosoft OfficelOffice14IWINWORD.EXE |
| :--- | :--- | :--- |
| File Type: | ASCII text, with CRLF line terminators |
| Category: | dropped |
| Size (bytes): | 53 |
| Entropy (8bit): | 4.114278124890147 |
| Encrypted: | false |
| SSDEEP: | 3:M1GZFSurNFSmX1GZFSv:MQ7Lvo7c |
| MD5: | $9731 E E E 3 C 0 A 02 A E 27 F 1 E E 87 C 1 F 8 D 6715$ |
| SHA1: | 4D5D69FD84A1DE2FB2865C456E57F5C27CEDA3CE |
| SHA-256: | $90 A E 3 C 9111 B 4 F B 7 E B D 7 F 273088 F B 110 C 401 D A 00 E 07382 D 2 B 1 D 7 B D 181 F 436 E 49 B$ |
| SHA-512: | 5F603970D5A7310A737F6A9E8FF7DA8445C0533F87716EC65B9557268D23ACF7001F112E4F809C1957FEEA1D6D482997BB55C7D5ABD13E5E4B68C925662922FD |
| Malicious: | false |
| Reputation: | low |
| Preview: | [doc]..SWIFT.LNK=0..SWIFT.LNK=0..[doc]..SWIFT.LNK=0.. |


| Process: | C:IProgram Files\Microsoft OfficelOffice14IWINWORD.EXE |
| :---: | :---: |
| File Type: | data |
| Category: | dropped |
| Size (bytes): | 162 |
| Entropy (8bit): | 2.431160061181642 |
| Encrypted: | false |
| SSDEEP: | 3:vrJlaCkWtVy3KGcils6w7AdtIn:vdsCkWthGciWfQl |
| MD5: | 4A5DFFE330E8BBBF59615CB0C71B87BE |
| SHA1: | 7B896C17F93ECFC9B69E84FC1EADEDD9DA550C4B |
| SHA-256: | D28616DC54FDEF1FF5C5BA05A77F178B7E3304493BAF3F4407409F2C84F4F215 |
| SHA-512: | 3AA160CB89F4D8393BCBF9FF4357FFE7AE00663F21F436D341FA4F5AD4AEDC737092985EB4A94A694A02780597C6375D1615908906A6CEC6D7AB616791B6285C |
| Malicious: | false |
| Reputation: | moderate, very likely benign file |
| Preview: | .user...........................................A.I.b.u.s...........p.................................P..................z.............x... |


| C:IUsersluserlAppDatalRoaminglizux978537.scr |  |
| :--- | :--- | :--- |
| Process: | C:IProgram FilesICommon FilesIMicrosoft SharedIEQUATIONIEQNEDT32.EXE |
| File Type: | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows |
| Category: | dropped |
| Size (bytes): | 7447752 |
| Entropy (8bit): | 5.138250665474018 |
| Encrypted: | false |
| SSDEEP: | 98304:eUYsXqrhgjzKQYaqTvH6nn0GRj27SchULsKSNiT3IOjibPQMpG:FqrwaPQj2hawl |
| MD5: | 7DA4F5E17791A774131C3C97538A2495 |
| SHA1: | 552B4A357B259935A35B06D040D7F2E3205C8E42 |
| SHA-256: | AC8EF770D70DA42EA56D5B15FB5DB0BE89AE9250AC78B2BFD493843A50399A19 |


| C:IUsersluser\AppDatalRoaminglizux978537.scr |  |
| :---: | :---: |
| SHA-512: | 4C0460E29457F9910F5EBB4090FBAF1E29D28E4D2ABB5F63DBE83061CDB306E0C545DB97662F6A380E438D615AD3B9F43EEC8D7B1F9B57EECFF63EF45557CE 7B |
| Malicious: | true |
| Preview: |  |


| C:IUsersluserlDesktopl~\$SWIFT.doc |  |
| :---: | :---: |
| Process: | C:IProgram Files\Microsoft OfficelOffice14IWINWORD.EXE |
| File Type: | data |
| Category: | dropped |
| Size (bytes): | 162 |
| Entropy (8bit): | 2.431160061181642 |
| Encrypted: | false |
| SSDEEP: | 3:vrJlaCkWtVy3KGcils6w7Adtln:vdsCkWthGciWfQl |
| MD5: | 4A5DFFE330E8BBBF59615CB0C71B87BE |
| SHA1: | 7B896C17F93ECFC9B69E84FC1EADEDD9DA550C4B |
| SHA-256: | D28616DC54FDEF1FF5C5BA05A77F178B7E3304493BAF3F4407409F2C84F4F215 |
| SHA-512: | 3AA160CB89F4D8393BCBF9FF4357FFE7AE00663F21F436D341FA4F5AD4AEDC737092985EB4A94A694A02780597C6375D1615908906A6CEC6D7AB616791B6285C |
| Malicious: | true |
| Preview: | .user..........................................A.I.b.u.s...........p.................................P..................Z.............X... |

## Static File Info

## General

| File type: | Rich Text Format data, version 1, unknown character set |
| :---: | :---: |
| Entropy (8bit): | 4.036745127605034 |
| TrID: | - Rich Text Format (5005/1) 55.56\% <br> - Rich Text Format (4004/1) 44.44\% |
| File name: | SWIFT.doc |
| File size: | 1258700 |
| MD5: | 516028d299e8b6b9f947fdb4541a5d7e |
| SHA1: | fa9c3d41dcd61c1dcade0ba7943882cf640a71cd |
| SHA256: | 6de5a6a916916823583495dae424fa8ce2f54c33f2a67da 83337b6f2579e816c |
| SHA512: | 63d59833ee33c2d743a5b7d95eebd6b1bc28b814253ce f6cd53441eb0e5e3ecf1053cdf13a421a2eb5d0b1463f5b 1a9c188f8ff6470ced7741c9362ac433022 |
| SSDEEP: | 24576:Np4EYWj0t4t9F97XxYJBfzroFtjC+o4hZkRkIMTq HrOke:s |
| File Content Preview: |  |

## File Icon



| Icon Hash: | e4eea2aaa4b4b4a4 |
| :--- | :--- |

## Static RTF Info

## Objects

| Id | Start | Format ID | Format | Classname | Datasize | Filename | Sourcepath | Temppath | Exploit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 00001568h | 2 | embedded | EqUatIOn. 3 | 626454 |  |  |  | no |

## Network Behavior

## Network Port Distribution



## Total Packets: 52

- 53 (DNS)
- 80 (HTTP)


## TCP Packets

| Timestamp | Source Port | Dest Port | Source IP | Dest IP |
| :---: | :---: | :---: | :---: | :---: |
| Dec 14, 2020 17:49:33.579776049 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.630593061 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.630748987 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.631094933 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.681514025 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682003975 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682048082 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682086945 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682126045 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682163000 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682202101 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682212114 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682255030 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682260990 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682265997 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682271004 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682462931 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682504892 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682543039 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682543993 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682580948 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682586908 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.682620049 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.682658911 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.687187910 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732657909 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732722044 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732760906 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732808113 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732810020 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732834101 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732839108 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732853889 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732856989 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732902050 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.732904911 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.732954979 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733072042 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |


| Timestamp | Source Port | Dest Port | Source IP | Dest IP |
| :---: | :---: | :---: | :---: | :---: |
| Dec 14, 2020 17:49:33.733114958 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733122110 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733160973 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733184099 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733222961 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733232975 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733261108 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733270884 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733306885 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733309031 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733361959 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733555079 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733572960 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733596087 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733603954 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733640909 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733644962 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733690023 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733694077 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733740091 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733882904 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.733932018 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.733983040 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.734025002 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.734029055 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.734062910 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.734067917 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.734107971 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.734731913 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.782946110 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783004045 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783129930 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783188105 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783471107 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783514977 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783551931 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783555984 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783567905 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783595085 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783627033 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783633947 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783647060 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783674002 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.783698082 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.783721924 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784116983 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784158945 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784189939 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784190893 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784209967 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784229994 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784251928 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784292936 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784425020 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784487963 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784501076 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784562111 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784575939 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784615993 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784637928 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |
| Dec 14, 2020 17:49:33.784663916 CET | 80 | 49167 | 46.173.221.33 | 192.168.2.22 |
| Dec 14, 2020 17:49:33.784665108 CET | 49167 | 80 | 192.168.2.22 | 46.173.221.33 |

## UDP Packets

| Timestamp | Source Port | Dest Port | Source IP | Dest IP |
| :---: | :---: | :---: | :---: | :---: |
| Dec 14, 2020 17:49:33.486143112 CET | 52197 | 53 | 192.168.2.22 | 8.8.8.8 |
| Dec 14, 2020 17:49:33.569056988 CET | 53 | 52197 | 8.8.8.8 | 192.168.2.22 |

## DNS Queries

| Timestamp | Source IP | Dest IP | Trans ID | OP Code | Name | Type | Class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dec 14, 2020 17:49:33.486143112 CET | 192.168.2.22 | 8.8.8.8 | 0xc229 | Standard query <br> (0) | mangero.ga | A (IP address) | IN (0x0001) |


| DNS Answers |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Timestamp | Source IP | Dest IP | Trans ID | Reply Code | Name | CName | Address | Type | Class |
| Dec 14, 2020 17:49:33.569056988 CET | 8.8.8.8 | 192.168.2.22 | 0xc229 | No error (0) | mangero.ga |  | 46.173.221.33 | A (IP address) | IN (0x0001) |

## HTTP Request Dependency Graph

| - mangero.ga |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HTTP Packets |  |  |  |  |  |
| Session ID | Source IP | Source Port | Destination IP | Destination Port | Process |
| 0 | 192.168.2.22 | 49167 | 46.173.221.33 | 80 | C:\Program Files\Common Files\Microsoft Shared\EQUATIONIEQNEDT32.EXE |
| Timestamp | kBytes transferred | Direction | Data |  |  |
| Dec 14, 2020 <br> 17:49:33.631094933 CET | 0 | OUT | GET /izux/hktestfile.scr HTTP/1.1 <br> Accept: */* <br> Accept-Encoding: gzip, deflate <br> User-Agent: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.1; WOW64; Trident/7.0; SLCC2; .NET CLR 2.0.50727; <br> .NET CLR 3.5.30729; .NET CLR 3.0.30729; Media Center PC 6.0; .NET4.0C; .NET4.0E) <br> Host: mangero.ga <br> Connection: Keep-Alive |  |  |
| $\begin{aligned} & \text { Dec 14, } 2020 \\ & \text { 17:49:33.682003975 CET } \end{aligned}$ | 2 | IN | HTTP/1.1 200 OK <br> Server: nginx/1.16.1 <br> Date: Mon, 14 Dec 2020 16:49:33 GMT <br> Content-Length: 7447752 <br> Connection: keep-alive <br> Last-Modified: Mon, 14 Dec 2020 05:14:33 GMT <br> ETag: "71a4c8-5b665b7b1b004" <br> Accept-Ranges: bytes <br> Data Raw: 4d 5a 90000300000004000000 ff ff 0000 b8 00000000000000400000000000000000000000 00000000000000000000000000000000000000000000000080000000 0e 1f ba 0 e 00 b 409 cd 21 b8 01 $4 \mathrm{ccd} 21546869732070726 f 6772616 d 206361$ 6e 6e 6f 74206265207275 6e $20696 e 20444 f 53206 d 6 f 64$ 65 2e 0d 0d 0a $2400000000000000504500004 c 010200$ f0 b4 d6 ff 0000000000000000 e0 000201 0b 01 0b 000088710000020000000000000 e a6 71000020000000 c 071000000400000200000000200000400 000000000000040000000000000000 e0 $7100000200009 a 75720002004085000010000010000000$ 0010000010000000000000100000000000000000000000 b4 a5 7100570000000000000000000000 000000000000000000 8c $7100 \mathrm{c} 818000000 \mathrm{c} 071000 c 000000000000000000000000000000000000$ 000000000000000000000000000000000000000000000000000000000000000000002000000800 0000000000000000000008200000480000000000000000000000 2e 746578740000001486710000 200000008871000002000000000000000000000000000020000060 2e 7265 6c $6 f 6300000 c 000000$ 00 c 0710000020000008 a 7100000000000000000000000000400000420000000000000000000000 000000000000000000000000000000000000000000000000000000000000000000000000000000 000000000000 f0 a5 710000000000480000000200050008007100 ac a5 0000030000000200000600 000000000000000000000000000000000000000000000000000000000000000000000000000000 000000000000000006 2a 1a 2000000000 2a fa fe 090100393000000028090000063918000000 fe 0900 0072 f6 5a 0070 fe 09010028 1c $00000 a 281 d 00000$ a 2a fe 090000 fe 090100281400000 2a fe 0900002 a 66 fe 09000020 of $0000005 f 2005000000$ fe 022000000000 fe 01 2a 4a fe 09000020 Of $0000005 f 20050000$ 00 fe 01 2a 4a fe 09000020 of $0000005 f 2006000000$ fe 01 2a 4a fe 09000020 of $0000005 f 2007000000$ fe 01 2a 4a fe 09000020 of $0000005 f 2008000000$ fe 01 2a 4a fe 09000020 of $0000005 f 200 \mathrm{al} 000000$ fe 01 2a 4a fe $09000020400000005 f 2040000000$ fe 01 2a 4a fe $09000020100000005 f 2010000000$ fe 01 2a a6 7f f6 0000 04280 e 00000 O 3a Of 000000282500000673 2d 00000 a 80 f 60000047 ff 6000004280 Of 00000 O 2 a a6 7f f7 000004280 e 00000 a 3 a Of 000000282600000673 2d 00000 a 80 f 70000047 f 77000004280 of 0000 0a 2a 1a 28100000 0a 2a $762823000006390 d 000000281100000 a 2000000000$ fe $012 a 20000000002 a 1330$ 1e 0077 6e 7000010000112000 ea 0a 00 8d Ob 000001252000000000 1f 4d 9c 252001000000 1f 5a 9c 252002 0000002090000000 9c 25200300000016 9c 25200400000019 9c 25200500000016 9c 252006000000 $169 c 252007000000169 c 252008000000$ 1a 9c $252009000000169 c 2520$ 0a 00000016 9c 2520 0b 0000 0016 9c 2520 oc 00000020 ff 000000 9c 2520 Od 00000020 ff $0000009 c 2520$ 0e 00000016 9c 2520 of 0000 00169 c 2520100000 <br> Data Ascii: MZ@!L!This program cannot be run in DOS mode.\$PEL_qq q@ qur@qWqq H.textq q `.relocqq@BqHq* *90(9rZp((***f _ *J _ *J _ *J _ *J _ *J _ *J @_ @*J_ *:(\%s-(*(:(\&s-(*(*v(\#9(**Ownp \% M\% Z\% \% \% \% \% \% \% \% \% \% \% \% \% \% \% |  |  |

## Code Manipulations

## Statistics

## Behavior



## System Behavior

Analysis Process: WINWORD.EXE PID: 2312 Parent PID: 584

| General |  |
| :--- | :--- |
|  | $17: 49: 39$ |
| Start time: | $14 / 12 / 2020$ |
| Start date: | C:IProgram Files\Microsoft OfficelOffice14IWINWORD.EXE |
| Path: | false |
| Wow64 process (32bit): | 'C:IProgram FilesIMicrosoft OfficelOffice14IWINWORD.EXE' /Automation -Embedding |
| Commandline: | $0 \times 13$ fb50000 |
| Imagebase: | 1424032 bytes |
| File size: | $95 C 38 D 04597050285 A 18 F 66039 E D B 456$ |
| MD5 hash: | true |
| Has elevated privileges: | true |
| Has administrator privileges: | C, C++ or other language |
| Programmed in: | high |
| Reputation: |  |

## File Activities

| File Created |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| File Path | Access | Attributes | Options | Completion | Count | Source Address | Symbol |
| C:IUsersluserlAppDatalLocallemplvBE | read data or list directory \| synchronize | device | directory file \| synchronous io non alert | open for backup ident | open reparse point | success or wait | 1 | 7FEE95226B4 | CreateDirectoryA |

File Deleted

| File Path | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: |
| C:IUsersluserlDesktopl-\$SWIFT.doc | success or wait | 1 | 7FEE9449AC0 | unknown |
| C:IUsersluserlAppDatalLocallTemplimgs_fileslthemedata.thm~ | success or wait | 1 | 7FEE9449AC0 | unknown |
| C:IUsersluserlAppDatalLocallTemplimgs_fileslcolorschememapping.xm~ | success or wait | 1 | 7FEE9449AC0 | unknown |
| C:IUsersluserlAppDatalLocallemplimgs_fileslfilelist.xm~ | success or wait | 1 | 7FEE9449AC0 | unknown |
| C:IUsersluser\AppDatalLocallTemplimgs.rcv | success or wait | 1 | 7FEE9449AC0 | unknown |
| C:IUsersluser\|AppDatalLocallTempl-WRL0000.tmp | success or wait | 1 | 7FEE9449AC0 | unknown |

## File Moved



| Key Created |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Key Path | Completion | Count | Source Address | Symbol |
| HKEY_CURRENT_USERISoftwarelMicrosoftlVBA | success or wait | 1 | 7FEE945E72B | RegCreateKeyExA |
| HKEY_CURRENT_USERISoftwarelMicrosoftlVBAI7.0 | success or wait | 1 | 7FEE945E72B | RegCreateKeyExA |
| HKEY_CURRENT_USERISoftwarelMicrosoftlVBAl7.0ICommon | success or wait | 1 | 7FEE945E72B | RegCreateKeyExA |
| HKEY_CURRENT_USERISoftwarelMicrosoftl\|OfficelCommonlofflinelOptions | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosofflOfficel14.01WordIResiliency | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosoftl\|Officel14.01WordlResiliencylDocumentRecovery | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosoffl\|Officel14.01WordlResiliencylDocumentRecoverylFD51A | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosoftlOfficel14.01WordlPlace MRU | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosoftlOfficel14.0\CommonlRecent Locations | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMicrosoftlOfficel14.01CommonlRecent LocationslSharePoint | success or wait | 1 | 7FEE9449AC0 | unknown |

Key Value Created

| Key Path | Name | Type | Data | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HKEY_CURRENT_USERISoftwarelMic rosoftl\|Officel14.01WordIResili encylDocumentRecoverylFD51A | FD51A | binary | 0400000008090000 2A 00000043 003 A 005 C 005500730065007200 7300 5C 004100 6C 006200750073 005 C 0041007000700044006100 74006100 5C 00 4C 00 6F 00630061 006 C 005 C 0054006500 6D 007000 5C 006900 6D 0067007300 2E 0068 007400 6D 00040000006900 6D 00 67007300000000000100000000 000000 6B 5E 1E B4 84 D2 D6 01 1A D5 0 F 00 1A D5 0 F 0000000000 DB 04000002000000000000000000 00000000000000000000000000 00 FF FF FF FF 0000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 00000000000000000000000000 | success or wait | 1 | 7FEE9449AC0 | unknown |



| Key Path | Name | Type | Data | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 2 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9713424497.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 3 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl0887538035.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 4 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl8416751812.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 5 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3580751004.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 6 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl5367203117.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 7 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3764832265.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 8 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3013890265.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.01Wordlfile mru | Item 9 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl0615447233.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 10 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top\4144085054.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 11 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl2109793820.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 12 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl1417002460.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 13 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top 1387277564. docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 14 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9281004682.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 15 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top 1169381505. docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 16 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top 9801086636 .docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 17 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl7838756049.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 18 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top\8416181845.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 19 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl2874006916.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 20 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9369051781.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftl\|Officel14.01WordIPlace MRU | Max Display | dword | 25 | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Max Display | dword | 25 | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 1 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl6516896632.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 2 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9713424497.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwareIMic rosoftlofficel14.01Wordlfile mru | Item 3 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl0887538035.docx | success or wait | 1 | 7FEE9449ACO | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 4 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl8416751812.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlofficel14.01Wordlfile mru | Item 5 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3580751004.docx | success or wait | 1 | 7FEE9449ACO | unknown |


| Key Path | Name | Type | Data | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 6 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top\5367203117.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 7 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3764832265.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 8 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl3013890265.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0\Wordlfile mru | Item 9 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl0615447233.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 10 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top\4144085054.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 11 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl2109793820.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 12 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl1417002460.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 13 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top\1387277564.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 14 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk top19281004682.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 15 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl1169381505.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 16 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9801086636.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 17 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl7838756049.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 18 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl8416181845.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOfficel14.0IWordlfile mru | Item 19 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl2874006916.docx | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_CURRENT_USERISoftwarelMic rosoftlOffice\14.0IWordlfile mru | Item 20 | unicode | [F00000000][T01D1BB6D4B429860] [O00000000]*C:IUsersluserlDesk topl9369051781.docx | success or wait | 1 | 7FEE9449AC0 | unknown |

## Key Value Modified

| Key Path | Name | Type | Old Data | New Data | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HKEY_LOCAL_MACHINEISOFT WAREIMi crosoftlWindowslCurrentVersion IInstaller\UserDatalS-1-5-18\P roductsl00004109D30000000100 000000F01FECIUsage | ProductFiles | dword | 1368260654 | 1368260655 | success or wait | 1 | 7FEE9449AC0 | unknown |
| HKEY_LOCAL_MACHINEISOFT | ProductFiles | dword | 1368260655 | 1368260656 | success or wait | 1 | 7FEE9449AC0 | unknown |

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IInstaller\UserDatalS-1-5-18\P
roducts100004109D30000000100
000000F01FECIUsage
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encylDocumentRecoverylFD51A

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| HKEY_CURRENT_USERISoftwa | FD51A | binary | 04000000080900002 2A 00 | 04000000080900002 A 00 | success or wait | 1 | 7FEE9449AC0 | unknown |
| relMic |  |  | $000043003 \mathrm{~A} 005 \mathrm{5C} 0055$ | 000043003 A 005 CCO 55 |  |  |  |  |
| rosoftlofficel14.01WordlResili |  |  | 007300650072007300 | $0073006500720073005 C$ |  |  |  |  |
| encylDocumentRecovery/FD51A |  |  | 5C 0041006 C 00620075 | $0041006 C 006200750073$ |  |  |  |  |
|  |  |  | $0073005 C 0041007000$ | $005 C 00410070007000$ |  |  |  |  |
|  |  |  | 70004400610074006100 | $44006100740061005 C 00$ |  |  |  |  |
|  |  |  | 5C $004 \mathrm{4C} 006 \mathrm{~F} 00630061$ | 4C 006 F 00630061006 C |  |  |  |  |
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## Analysis Process: EQNEDT32.EXE PID: 2488 Parent PID: 584

| General |  |
| :---: | :---: |
| Start time: | 17:49:40 |
| Start date: | 14/12/2020 |
| Path: | C:\Program Files\Common Files\Microsoft Shared\EQUATIONIEQNEDT32.EXE |
| Wow64 process (32bit): | true |
| Commandline: | 'C:\Program Files\Common Files\Microsoft Shared\EQUATIONIEQNEDT32.EXE' -Embedding |
| Imagebase: | 0x400000 |
| File size: | 543304 bytes |
| MD5 hash: | A87236E214F6D42A65F5DEDAC816AEC8 |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Reputation: | high |


| File Activities |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| File Path | Access |  |  | Attributes | Options | Completion | Count | Source <br> Address | Symbol |
| File Path | Offset | Length | Value |  |  | Completion | Count | Source <br> Address | Symbol |
| File Path |  |  |  | Offset | Length | Completion | Count | Source <br> Address | Symbol |

## Registry Activities

## Key Created



Analysis Process: izux978537.scr PID: 2668 Parent PID: 2488

| General |  |
| :--- | :--- |
|  |  |
| Start time: | $17: 49: 46$ |
| Start date: | $14 / 12 / 2020$ |
| Path: | C:IUsersluserlAppDatalRoaminglizux978537.scr |
| Wow64 process (32bit): | true |
| Commandline: | C:IUsersluserlappDatalRoaminglizux978537.scr |
| Imagebase: | 0xbc0000 |
| File size: | 7447752 bytes |
| MD5 hash: | 7DA4F5E17791A774131C3C97538A2495 |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | .Net C\# or VB.NET |
| Reputation: | low |

File Activities

| File Read |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| File Path | Offset | Length | Completion | Count | Source Address | Symbol |
| C:IWindowsIMicrosoft.NET\Frameworklv4.0.303191Configlmachine.config | unknown | 4095 | success or wait | 1 | 6E1D7995 | unknown |
| C:IWindowsIMicrosoft.NET\FFrameworklv4.0.303191Configlmachine.config | unknown | 6135 | success or wait | 1 | 6E1D7995 | unknown |
| C:IWindowslassemblylNativelmages_v4.0.30319_32lmscorlibl7582 400666d289c016013ad0f6e0e3e6Imscorlib.ni.dll.aux | unknown | 176 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowsIMicrosoft.NET\Frameworklv4.0.303191Configlmachine.config | unknown | 4095 | success or wait | 1 | 6E1DA1A4 | ReadFile |
| C:IWindowslassemblylNativeImages_v4.0.30319_32ISysteml1be7a1 5b1f33bf22e4f53aaf45518c771System.ni.dll.aux | unknown | 620 | success or wait | 1 | 6EOEDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_32ISystem. Window s.Formslfb06ad4bc55b9c3ca68a3f9259d826cdlSystem.Windows.Forms.ni.dII.aux | unknown | 1720 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassembly 1 NativeImages_v4.0.30319_32ISystem.Drawin gl1d52bd4ac5e0a6422058a5d62c9f6d9dISystem.Drawing.ni.dll.aux | unknown | 584 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_321System.Config urationlfe4b221b4109f0c78f57a792500699b5ISystem.Configuration.ni.dll.aux | unknown | 864 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassembly 1 NativeImages_v4.0.30319_32ISystem.Corele b4cca4f06a15158c3f7e2c56516729bISystem.Core.ni.dll.aux | unknown | 900 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassemblyINativelmages_v4.0.30319_32ISystem.Xmll4f bda26d781323081b45526da6e87b351System.Xml.ni.dIl.aux | unknown | 748 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowsIMicrosoft.NETIFrameworklv4.0.303191Configlmachine.config | unknown | 4096 | success or wait | 1 | 6D1DB2B3 | ReadFile |
| C:IWindowsIMicrosoft.NET\FFrameworklv4.0.303191Configlmachine.config | unknown | 4096 | end of file | 1 | 6D1DB2B3 | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_32lMicrosoft.V99 <br> 21e851\#4fc035341c55c61ce51e53d179d1e19dlMicrosoft.VisualBasic.ni.dll.aux | unknown | 1708 | success or wait | 1 | 6E0EDE2C | ReadFile |

## Analysis Process: EQNEDT32.EXE PID: 2976 Parent PID: 584

| General |  |
| :--- | :--- |
|  |  |
| Start time: | $17: 50: 06$ |
| Start date: | $14 / 12 / 2020$ |
| Path: | C:IProgram Files\Common Files\Microsoft Shared\EQUATION\EQNEDT32.EXE |
| Wow64 process (32bit): | true |
| Commandline: | 'C:IProgram FilesICommon FilesIMicrosoft Shared\EQUATIONIEQNEDT32.EXE' -Embedding |


| Imagebase: | $0 \times 400000$ |
| :--- | :--- |
| File size: | 543304 bytes |
| MD5 hash: | A87236E214F6D42A65F5DEDAC816AEC8 |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Reputation: | high |

## File Activities



Analysis Process: izux978537.scr PID: 2308 Parent PID: 2668

| General |  |
| :--- | :--- |
|  | $17: 50: 37$ |
| Start time: | $14 / 12 / 2020$ |
| Start date: | C:IUsersluserlAppDatalRoaminglizux978537.scr |
| Path: | false |
| Wow64 process (32bit): | C:IUsersluserlAppDatalRoaminglizux978537.scr |
| Commandline: | 0xbc0000 |
| Imagebase: | 7447752 bytes |
| File size: | 7DA4F5E17791A774131C3C97538A2495 |
| MD5 hash: | true |
| Has elevated privileges: | true |
| Has administrator privileges: | C, C++ or other language |
| Programmed in: | low |
| Reputation: |  |

Analysis Process: izux978537.scr PID: 3016 Parent PID: 2668

| General |  |
| :--- | :--- |
|  | $17: 50: 40$ |
| Start time: | $14 / 12 / 2020$ |
| Start date: | C:IUsersluserlAppDatalRoaminglizux978537.scr |
| Path: | true |
| Wow64 process (32bit): | C:IUsersluserlappDatalRoaminglizux978537.scr |
| Commandline: | 0xbc0000 |
| Imagebase: | 74477752 bytes |
| File size: | 7DA4F5E17791A774131C3C97538A2495 |
| MD5 hash: | true |
| Has elevated privileges: | true |
| Has administrator privileges: | . Net C\# or VB.NET |
| Programmed in: |  |


| Yara matches: | - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2378186428.0000000002D68000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000003.2226541368.0000000004335000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2376684630.0000000002C3A000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: APT_NK_BabyShark_KimJoingRAT_Apr19_1, Description: Detects BabyShark KimJongRAT, Source: 00000009.00000002.2371163613.00000000002C0000.00000004.00000001.sdmp, Author: Florian Roth <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2371163613.00000000002C0000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2376638694.0000000002C1E000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_M00nD3vLogger, Description: Yara detected M00nD3v Logger, Source: 00000009.00000002.2375979476.0000000002B5B000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2378260409.0000000003B31000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: MAL_HawkEye_Keylogger_Gen_Dec18, Description: Detects HawkEye Keylogger Reborn, Source: 00000009.00000002.2376075790.0000000002B90000.00000004.00000001.sdmp, Author: Florian Roth <br> - Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000009.00000002.2376075790.0000000002B90000.00000004.00000001.sdmp, Author: Joe Security <br> - Rule: MAL_HawkEye_Keylogger_Gen_Dec18, Description: Detects HawkEye Keylogger Reborn, Source: 00000009.00000002.2371242328.0000000000402000.00000040.00000001.sdmp, Author: Florian Roth <br> - Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000009.00000002.2371242328.0000000000402000.00000040.00000001.sdmp, Author: Joe Security <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.2378154261.0000000002D45000.00000004.00000001.sdmp, Author: Joe Security |
| :---: | :---: |
| Reputation: | low |

## File Activities

## File Created

| File Path | Access | Attributes | Options | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C:IUsersluser\AppDatalLocallTempl73f52833-e0b3-84b4-f8d3-07d b0b3195f9 | read attributes \| synchronize | generic write | device \| sparse file | sequential only \| synchronous io non alert | non directory file | open no recall | success or wait | 1 | 6D1DF4A8 | CreateFileW |
| C:IUsersluser\AppDatalLocallTempltmp2915.tmp | read attributes \| <br> synchronize \| <br> generic read | device \| sparse file | synchronous io non alert \| non directory file | success or wait | 1 | 6D1D7C90 | GetTempFileNameW |
| C:IUsersluser\AppDatalLocallTempltmp2916.tmp | read attributes \| synchronize | generic read | device \| sparse file | synchronous io non alert \| non directory file | success or wait | 1 | 6D1D7C90 | GetTempFileNameW |


| File Written |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| File Path | Offset | Length | Value | Ascii | Completion | Count | Source <br> Address | Symbol |
| C:IUsersluser\AppDatalLocallTempl73f52833-e0b3-84b4-f8d307db0b3195f9 | unknown | 64 | 367938 6c 78504 b 5050424957 2b 31 64755178 2b 3175 64676338597071 454 e 4449344474 $31497 a 71434455$ 2f 5239533741 4c $3335793931394 e$ 6951415052 5a 73 4 e | 6y81xPKPPBIW+1duQx+1 udgc8YpqEN DI4Dt1IzqCDU/R9S7AL35 y919NiQAPRZsN | success or wait | 1 | 6D1DB2B3 | WriteFile |

File Read

| File Path | Offset | Length | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C:IWindowsIMicrosoft.NET\Frameworklv4.0.303191Configlmachine.config | unknown | 4095 | success or wait | 1 | 6E1D7995 | unknown |
| C:IWindowsIMicrosoft.NET\Frameworklv4.0.303191Configlmachine.config | unknown | 6135 | success or wait | 1 | 6E1D7995 | unknown |
| C:IWindowslassembly 1 Nativelmages_v4.0.30319_32 1 mscorlibl 7582 400666d289c016013adof6e0e3e61mscorlib.ni.dll.aux | unknown | 176 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowsIMicrosoft.NET\Frameworklv4.0.303191Configlmachine.config | unknown | 4095 | success or wait | 1 | 6E1DA1A4 | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_32IMicrosoft.V99 21e851\#14fc035341c55c61ce51e53d179d1e19dIMicrosoft.VisualBasic.ni.dll.aux | unknown | 1708 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassembly 1 Nativelmages_v4.0.30319_321Systeml1be7a1 5b1f33bf22e4f53aaf45518c771System.ni.dll.aux | unknown | 620 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_321System.Corele b4cca4f06a15158c3f7e2c56516729blSystem.Core.ni.dll.aux | unknown | 900 | success or wait | 1 | 6EOEDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_321System.Manage mentl98d3949f9ba1a384939805aa5e47e9331System.Management.ni.dll.aux | unknown | 764 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_321System.Window s.Formslfb06ad4bc55b9c3ca68a3f9259d826cdlSystem.Windows.Forms.ni.dll.aux | unknown | 1720 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IWindowslassemblylNativelmages_v4.0.30319_321System.Drawin gl1d52bd4ac5e0a6422058a5d62c9f6d9dISystem.Drawing.ni.dll.aux | unknown | 584 | success or wait | 1 | 6E0EDE2C | ReadFile |
| C:IUsersluserlAppDatalLocallGooglelChromelUser DatalDefaultLogin Data | unknown | 40960 | success or wait | 1 | 6D1DB2B3 | ReadFile |
| C:IUsersluserlAppDatalLocallTempltmp2915.tmp | unknown | 4096 | end of file | 59 | 6D1DB2B3 | ReadFile |
| C:IUsersluserlAppDatalLocall Templtmp2916.tmp | unknown | 4096 | end of file | 59 | 6D1DB2B3 | ReadFile |

Analysis Process: vbc.exe PID: 1492 Parent PID: 3016

| General |  |
| :---: | :---: |
| Start time: | 17:50:49 |
| Start date: | 14/12/2020 |
| Path: | C:IWindows\Microsoft.NET\Frameworklv2.0.50727\vbc.exe |
| Wow64 process (32bit): | true |
| Commandline: | 'C:IWindows\Microsoft.NET\Frameworklv2.0.50727\vbc.exe' /stext 'C:IUsersluser\Ap pDatalLocallTempltmp2915.tmp' |
| Imagebase: | 0x400000 |
| File size: | 1170056 bytes |
| MD5 hash: | 1672D0478049ABDAF0197BE64A7F867F |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Yara matches: | - Rule: APT_NK_BabyShark_KimJoingRAT_Apr19_1, Description: Detects BabyShark KimJongRAT, Source: 0000000A.00000002.2248711261.0000000000400000.00000040.00000001.sdmp, Author: Florian Roth <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 0000000A.00000002.2248711261.0000000000400000.00000040.00000001.sdmp, Author: Joe Security |
| Reputation: | moderate |

## File Activities

## File Read

| File Path | Offset | Length | Completion | Count | Source Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C:IUsersluserlAppDatalLocallMicrosoftlWindows Maillaccount\{1A8FD30D-54EE-4EEB-8215CD6025565AFB\}.oeaccount | unknown | 1506 | success or wait | 1 | 406742 | ReadFile |
| C:IUsersluserlAppDatalLocallMicrosoftlWindows Maillaccount\{33B756C3-F7A3-41C2-A60CF1D01A06DF77\}.oeaccount | unknown | 1734 | success or wait | 1 | 406742 | ReadFile |
| C:IUsersluserlAppDatalLocallMicrosoftlWindows Maillaccount\{FA09A89F-FF90-4081-AEC249D0E839C9B5\}.oeaccount | unknown | 670 | success or wait | 1 | 406742 | ReadFile |

## Analysis Process: vbc.exe PID: 948 Parent PID: 3016

## General

| Start time: | 17:50:49 |
| :---: | :---: |
| Start date: | 14/12/2020 |
| Path: | C:IWindows\Microsoft.NET\Frameworklv2.0.50727\vbc.exe |
| Wow64 process (32bit): | true |
| Commandline: | 'C:IWindows\Microsoft.NET\Frameworklv2.0.50727\vbc.exe' /stext 'C:IUsersluser\Ap pDatalLocallTempltmp2916.tmp' |
| Imagebase: | 0x400000 |
| File size: | 1170056 bytes |
| MD5 hash: | 1672D0478049ABDAF0197BE64A7F867F |
| Has elevated privileges: | true |
| Has administrator privileges: | true |
| Programmed in: | C, C++ or other language |
| Yara matches: | - Rule: APT_NK_BabyShark_KimJoingRAT_Apr19_1, Description: Detects BabyShark KimJongRAT, Source: 0000000B.00000002.2242831512.0000000000400000.00000040.00000001.sdmp, Author: Florian Roth <br> - Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 0000000B.00000002.2242831512.0000000000400000.00000040.00000001.sdmp, Author: Joe Security |
| Reputation: | moderate |

File Activities

File Read

| File Path | Offset | Length | Completion | Count | Source <br> Address | Symbol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C:IUsersluserlAppDatalLocallMicrosoft\|Windows Maillaccount\{1A8FD30D-54EE-4EEB-8215CD6025565AFB\}.oeaccount | unknown | 1506 | success or wait | 1 | 406742 | ReadFile |
| C:IUsersluser\AppDatalLocallMicrosofttWindows Maillaccount\{33B756C3-F7A3-41C2-A60CF1D01A06DF77\}.oeaccount | unknown | 1734 | success or wait | 1 | 406742 | ReadFile |
| C:IUsersluser\AppDatalLocallMicrosoftlWindows Maillaccount\{FA09A89F-FF90-4081-AEC249D0E839C9B5\}.oeaccount | unknown | 670 | success or wait | 1 | 406742 | ReadFile |

## Disassembly

## Code Analysis

