

JoeSandbox Cloud BASIC



ID: 473673

Sample Name: 300821.PDF.exe

Cookbook: default.jbs

Time: 06:54:09

Date: 30/08/2021

Version: 33.0.0 White Diamond

Table of Contents

Table of Contents	2
Windows Analysis Report 300821.PDF.exe	4
Overview	4
General Information	4
Detection	4
Signatures	4
Classification	4
Process Tree	4
Malware Configuration	4
Threatname: HawkEye	4
Yara Overview	4
Memory Dumps	4
Unpacked PEs	5
Sigma Overview	5
System Summary:	5
Jbx Signature Overview	5
AV Detection:	5
Networking:	5
Key, Mouse, Clipboard, Microphone and Screen Capturing:	5
System Summary:	5
Data Obfuscation:	5
Hooking and other Techniques for Hiding and Protection:	6
Malware Analysis System Evasion:	6
HIPS / PFW / Operating System Protection Evasion:	6
Stealing of Sensitive Information:	6
Remote Access Functionality:	6
Mitre Att&ck Matrix	6
Behavior Graph	7
Screenshots	7
Thumbnails	7
Antivirus, Machine Learning and Genetic Malware Detection	8
Initial Sample	8
Dropped Files	8
Unpacked PE Files	8
Domains	9
URLs	9
Domains and IPs	9
Contacted Domains	9
URLs from Memory and Binaries	10
Contacted IPs	10
Public	10
Private	10
General Information	10
Simulations	10
Behavior and APIs	11
Joe Sandbox View / Context	11
IPs	11
Domains	11
ASN	11
JA3 Fingerprints	11
Dropped Files	11
Created / dropped Files	11
Static File Info	13
General	13
File Icon	13
Network Behavior	14
Snort IDS Alerts	14
Network Port Distribution	14
TCP Packets	14
UDP Packets	14
DNS Queries	14
DNS Answers	14
FTP Packets	14
Code Manipulations	15
Statistics	15
Behavior	15
System Behavior	15
Analysis Process: 300821.PDF.exe PID: 4816 Parent PID: 6592	15
General	15
File Activities	16
File Created	16
File Written	16
File Read	16
Analysis Process: 300821.PDF.exe PID: 2848 Parent PID: 4816	16

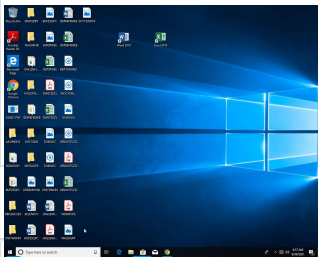
General	16
File Activities	17
File Created	17
File Deleted	17
File Written	17
File Read	17
Registry Activities	17
Key Value Modified	17
Analysis Process: vbc.exe PID: 1668 Parent PID: 2848	17
General	17
File Activities	17
File Created	17
File Deleted	18
File Written	18
File Read	18
Analysis Process: vbc.exe PID: 5604 Parent PID: 2848	18
General	18
File Activities	18
File Created	18
Disassembly	18
Code Analysis	18

Overview

General Information

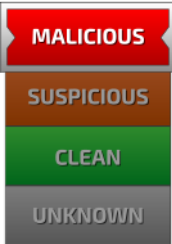
Sample Name:	300821.PDF.exe
Analysis ID:	473673
MD5:	ddfc57b8fd3e5e0..
SHA1:	ca35000ed1844f3.
SHA256:	c1cd0692836798..
Tags:	exe hawkeye
Infos:	      

Most interesting Screenshot:



Process Tree

Detection

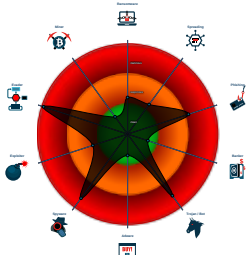


HawkEye MailPassView	
Score:	100
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

- Found malware configuration
- Sigma detected: Suspicious Double ...
- Snort IDS alert for network traffic (e...
- Yara detected MailPassView
- Multi AV Scanner detection for subm...
- Yara detected HawkEye Keylogger
- Malicious sample detected (through ...
- Yara detected AntiVM3
- Detected HawkEye Rat
- Sample uses process hollowing tech...
- Initial sample is a PE file and has a ...
- .NET source code references suspici...

Classification



- ```

System is w10x64
•  300821.PDF.exe (PID: 4816 cmdline: 'C:\Users\user\Desktop\300821.PDF.exe' MD5: DDFC57B8FD3E5E0F81DEE8EAD0E38518)
 •  300821.PDF.exe (PID: 2848 cmdline: C:\Users\user\Desktop\300821.PDF.exe MD5: DDFC57B8FD3E5E0F81DEE8EAD0E38518)
 •  vbc.exe (PID: 1668 cmdline: C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe /stext 'C:\Users\user\AppData\Local\Temp\holderwbw.txt' MD5: C63ED21D5706A527419C9FBD730FFB2E)
 •  vbc.exe (PID: 5604 cmdline: C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe /stext 'C:\Users\user\AppData\Local\Temp\holdermail.txt' MD5: C63ED21D5706A527419C9FBD730FFB2E)
 ■ cleanup

```

## Malware Configuration

Threatname: HawkEye

```
{
 "Modules": [
 "mailpv",
 "Mail PassView"
],
 "Version": ""
}
```

## Yara Overview

## Memory Dumps

| Source                                                              | Rule                           | Description                                             | Author       | Strings |
|---------------------------------------------------------------------|--------------------------------|---------------------------------------------------------|--------------|---------|
| 00000000.00000002.665567909.0000000002FA5000.00000004.00000001.sdmp | JoeSecurity_AntiVM_3           | Yara detected AntiVM_3                                  | Joe Security |         |
| 00000009.00000002.684649797.000000000040000.00000040.00000001.sdmp  | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| 00000008.00000002.693074434.000000000040000.00000040.00000001.sdmp  | JoeSecurity_WebBrowserPassView | Yara detected WebBrowserPassView password recovery tool | Joe Security |         |

| Source                                                              | Rule                           | Description                                             | Author       | Strings |
|---------------------------------------------------------------------|--------------------------------|---------------------------------------------------------|--------------|---------|
| 00000005.00000002.916254009.0000000003B61000.00000004.00000001.sdmp | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| 00000005.00000002.916254009.0000000003B61000.00000004.00000001.sdmp | JoeSecurity_WebBrowserPassView | Yara detected WebBrowserPassView password recovery tool | Joe Security |         |
| Click to see the 25 entries                                         |                                |                                                         |              |         |

### Unpacked PEs

| Source                              | Rule                           | Description                                             | Author       | Strings |
|-------------------------------------|--------------------------------|---------------------------------------------------------|--------------|---------|
| 5.2.300821.PDF.exe.45fa72.1.unpack  | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| 9.2.vbc.exe.400000.0.raw.unpack     | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| 5.2.300821.PDF.exe.3b69930.8.unpack | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| 5.2.300821.PDF.exe.409c0d.3.unpack  | JoeSecurity_WebBrowserPassView | Yara detected WebBrowserPassView password recovery tool | Joe Security |         |
| 9.2.vbc.exe.400000.0.unpack         | JoeSecurity_MailPassView       | Yara detected MailPassView                              | Joe Security |         |
| Click to see the 73 entries         |                                |                                                         |              |         |

## Sigma Overview

### System Summary:



Sigma detected: Suspicious Double Extension

## Jbx Signature Overview



Click to jump to signature section

### AV Detection:



Found malware configuration

Multi AV Scanner detection for submitted file

### Networking:



Snort IDS alert for network traffic (e.g. based on Emerging Threat rules)

### Key, Mouse, Clipboard, Microphone and Screen Capturing:



Yara detected HawkEye Keylogger

Contains functionality to log keystrokes (.Net Source)

### System Summary:



Malicious sample detected (through community Yara rule)

Initial sample is a PE file and has a suspicious name

### Data Obfuscation:



.NET source code contains potential unpacker

## Hooking and other Techniques for Hiding and Protection:



Changes the view of files in windows explorer (hidden files and folders)

Uses an obfuscated file name to hide its real file extension (double extension)

## Malware Analysis System Evasion:



Yara detected AntiVM3

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

## HIPS / PFW / Operating System Protection Evasion:



Sample uses process hollowing technique

.NET source code references suspicious native API functions

## Stealing of Sensitive Information:



Yara detected MailPassView

Yara detected HawkEye Keylogger

Tries to steal Mail credentials (via file registry)

Yara detected WebBrowserPassView password recovery tool

Tries to steal Mail credentials (via file access)

Tries to steal Instant Messenger accounts or passwords

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

## Remote Access Functionality:



Yara detected HawkEye Keylogger

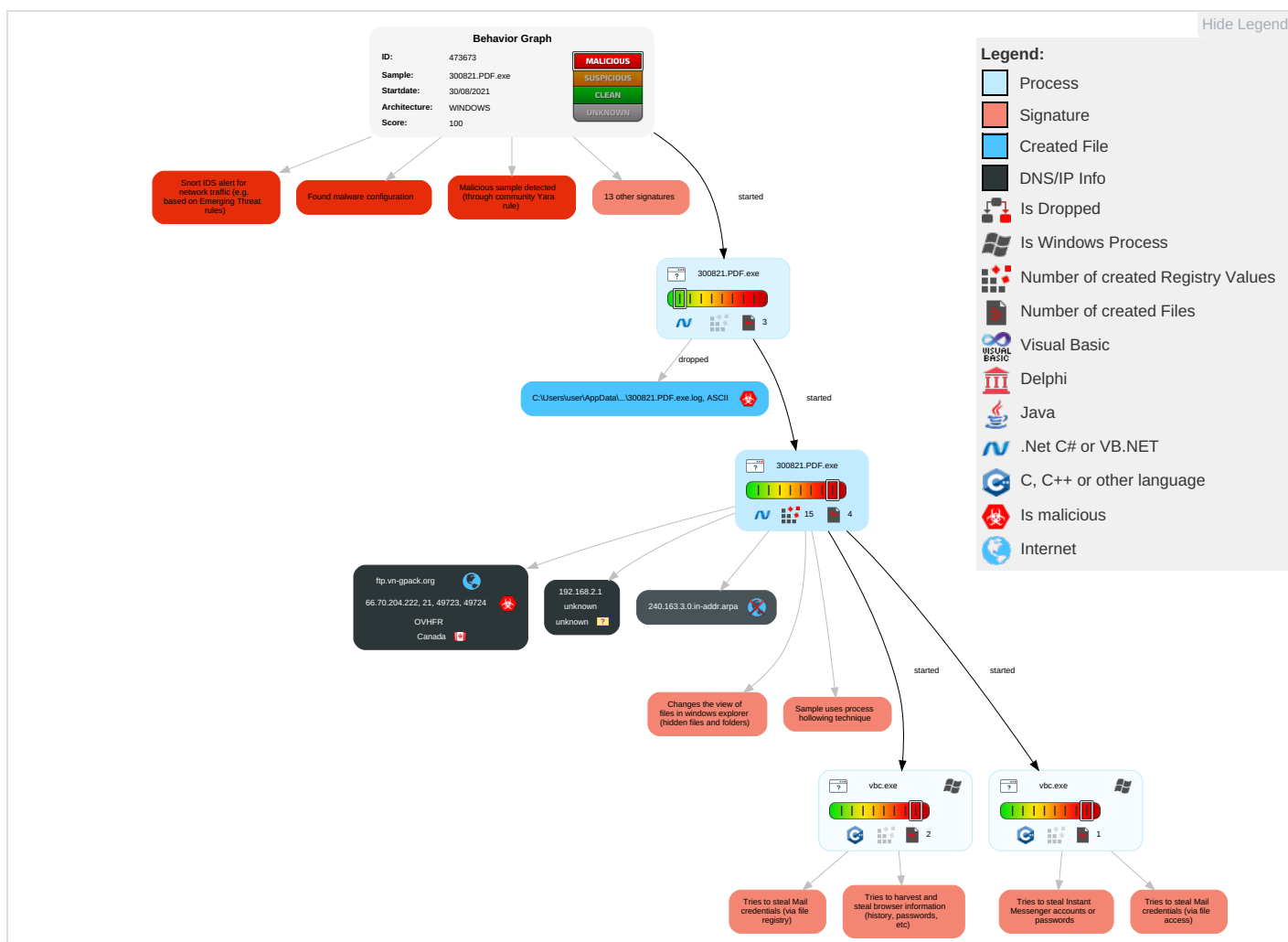
Detected HawkEye Rat

## Mitre Att&ck Matrix

| Initial Access                               | Execution                                   | Persistence                          | Privilege Escalation           | Defense Evasion                                    | Credential Access                | Discovery                               | Lateral Movement                             | Collection                        | Exfiltration                                    | Com and            |
|----------------------------------------------|---------------------------------------------|--------------------------------------|--------------------------------|----------------------------------------------------|----------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------|-------------------------------------------------|--------------------|
| Replication Through Removable Media <b>1</b> | Windows Management Instrumentation <b>1</b> | Application Shimming <b>1</b>        | Application Shimming <b>1</b>  | Disable or Modify Tools <b>1</b>                   | OS Credential Dumping <b>1</b>   | System Time Discovery <b>1</b>          | Replication Through Removable Media <b>1</b> | Archive Collected Data <b>1 1</b> | Exfiltration Over Alternative Protocol <b>1</b> | Encr Char          |
| Default Accounts                             | Native API <b>1 1</b>                       | Boot or Logon Initialization Scripts | Process Injection <b>1 1 1</b> | Deobfuscate/Decode Files or Information <b>1 1</b> | Input Capture <b>1</b>           | Peripheral Device Discovery <b>1</b>    | Remote Desktop Protocol                      | Data from Local System <b>1</b>   | Exfiltration Over Bluetooth                     | Non-Port           |
| Domain Accounts                              | Shared Modules <b>1</b>                     | Logon Script (Windows)               | Logon Script (Windows)         | Obfuscated Files or Information <b>1 4 1</b>       | Credentials in Registry <b>2</b> | Account Discovery <b>1</b>              | SMB/Windows Admin Shares                     | Email Collection <b>1</b>         | Automated Exfiltration                          | Rem Soft           |
| Local Accounts                               | At (Windows)                                | Logon Script (Mac)                   | Logon Script (Mac)             | Software Packing <b>1 3</b>                        | Credentials In Files <b>1</b>    | File and Directory Discovery <b>1</b>   | Distributed Component Object Model           | Input Capture <b>1</b>            | Scheduled Transfer                              | Non-Appl Laye Prot |
| Cloud Accounts                               | Cron                                        | Network Logon Script                 | Network Logon Script           | Masquerading <b>1 1</b>                            | LSA Secrets                      | System Information Discovery <b>1 8</b> | SSH                                          | Clipboard Data <b>1</b>           | Data Transfer Size Limits                       | Appl Laye Prot     |
| Replication Through Removable Media          | Launchd                                     | Rc.common                            | Rc.common                      | Virtualization/Sandbox Evasion <b>4 1</b>          | Cached Domain Credentials        | Query Registry <b>1</b>                 | VNC                                          | GUI Input Capture                 | Exfiltration Over C2 Channel                    | Multi Com          |

| Initial Access                                         | Execution                         | Persistence        | Privilege Escalation | Defense Evasion                | Credential Access           | Discovery                          | Lateral Movement                           | Collection             | Exfiltration                                             | Command           |
|--------------------------------------------------------|-----------------------------------|--------------------|----------------------|--------------------------------|-----------------------------|------------------------------------|--------------------------------------------|------------------------|----------------------------------------------------------|-------------------|
| External Remote Services                               | Scheduled Task                    | Startup Items      | Startup Items        | Process Injection 1 1 1        | DCSync                      | Security Software Discovery 1 2 1  | Windows Remote Management                  | Web Portal Capture     | Exfiltration Over Alternative Protocol                   | Command User      |
| Drive-by Compromise                                    | Command and Scripting Interpreter | Scheduled Task/Job | Scheduled Task/Job   | Hidden Files and Directories 1 | Proc Filesystem             | Virtualization/Sandbox Evasion 4 1 | Shared Webroot                             | Credential API Hooking | Exfiltration Over Symmetric Encrypted Non-C2 Protocol    | Application Layer |
| Exploit Public-Facing Application                      | PowerShell                        | At (Linux)         | At (Linux)           | Masquerading                   | /etc/passwd and /etc/shadow | Process Discovery 3                | Software Deployment Tools                  | Data Staged            | Exfiltration Over Asymmetric Encrypted Non-C2 Protocol   | Web               |
| Supply Chain Compromise                                | AppleScript                       | At (Windows)       | At (Windows)         | Invalid Code Signature         | Network Sniffing            | Application Window Discovery 1     | Taint Shared Content                       | Local Data Staging     | Exfiltration Over Unencrypted/Obfuscated Non-C2 Protocol | File Protocol     |
| Compromise Software Dependencies and Development Tools | Windows Command Shell             | Cron               | Cron                 | Right-to-Left Override         | Input Capture               | System Owner/User Discovery 1      | Replication Through Removable Media        | Remote Data Staging    | Exfiltration Over Physical Medium                        | Mail              |
| Compromise Software Supply Chain                       | Unix Shell                        | Launchd            | Launchd              | Rename System Utilities        | Keylogging                  | Remote System Discovery 1          | Component Object Model and Distributed COM | Screen Capture         | Exfiltration over USB                                    | DNS               |

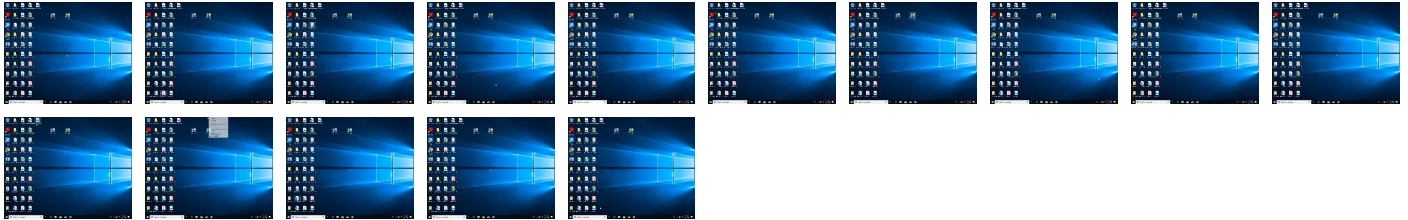
## Behavior Graph



## 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 |
|----------------|-----------|---------------|--------------------------------|------|
| 300821.PDF.exe | 22%       | ReversingLabs | ByteCode-MSIL.InfoStealer.Heye |      |

### Dropped Files

No Antivirus matches

### Unpacked PE Files

| Source                      | Detection | Scanner | Label             | Link | Download                      |
|-----------------------------|-----------|---------|-------------------|------|-------------------------------|
| 8.2.vbc.exe.400000.0.unpack | 100%      | Avira   | HEUR/AGEN.1125438 |      | <a href="#">Download File</a> |

| Source                              | Detection | Scanner | Label                     | Link | Download                      |
|-------------------------------------|-----------|---------|---------------------------|------|-------------------------------|
| 0.2.300821.PDF.exe.4d2ad28.6.unpack | 100%      | Avira   | TR/Inject.vcoldi          |      | <a href="#">Download File</a> |
| 5.2.300821.PDF.exe.400000.0.unpack  | 100%      | Avira   | TR/AD.MExecute.lzrac      |      | <a href="#">Download File</a> |
| 5.2.300821.PDF.exe.400000.0.unpack  | 100%      | Avira   | SPR/Tool.MailPassView.473 |      | <a href="#">Download File</a> |

### Domains

| Source           | Detection | Scanner    | Label | Link                   |
|------------------|-----------|------------|-------|------------------------|
| ftp.vn-gpack.org | 1%        | Virustotal |       | <a href="#">Browse</a> |

### URLs

| Source                                                                                                                                                                                                                           | Detection | Scanner         | Label | Link |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|-------|------|
| <a href="https://deff.nelreports.net/api/report?cat=msn">http://https://deff.nelreports.net/api/report?cat=msn</a>                                                                                                               | 0%        | URL Reputation  | safe  |      |
| <a href="https://mem.gfx.ms/me/MeControl/10.19168.0/en-US/meCore.min.js">http://https://mem.gfx.ms/me/MeControl/10.19168.0/en-US/meCore.min.js</a>                                                                               | 0%        | URL Reputation  | safe  |      |
| <a href="https://images.outbrainimg.com/transform/v3/eyJpdSI6ljK4OGQ1ZDgwMWE2ODQ2NDNkM2ZkMmYyMGEwOTgwMWQ3MDE2Z">http://images.outbrainimg.com/transform/v3/eyJpdSI6ljK4OGQ1ZDgwMWE2ODQ2NDNkM2ZkMmYyMGEwOTgwMWQ3MDE2Z</a>         | 0%        | Avira URL Cloud | safe  |      |
| <a href="http://www.galapagosdesign.com/DPlease">http://www.galapagosdesign.com/DPlease</a>                                                                                                                                      | 0%        | URL Reputation  | safe  |      |
| <a href="http://www.zhongyicts.com.cn">http://www.zhongyicts.com.cn</a>                                                                                                                                                          | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000/Converged_v21033_-0mnSwu67knBd7qR7YN9GQ2.css">http://https://logincdn.msauth.net/16.000/Converged_v21033_-0mnSwu67knBd7qR7YN9GQ2.css</a>                                             | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000.28666.10/content/images/microsoft_logo_ee5c8d9fb6248c938fd0dc1937">http://https://logincdn.msauth.net/16.000.28666.10/content/images/microsoft_logo_ee5c8d9fb6248c938fd0dc1937</a>   | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000.28666.10/content/images/ellipsis_white_5ac590ee72bfe06a7cecfdb5b5">http://https://logincdn.msauth.net/16.000.28666.10/content/images/ellipsis_white_5ac590ee72bfe06a7cecfdb5b5</a>   | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000.28666.10/content/images/ellipsis_grey_2b5d393db04a5e6e1f739cb266e">http://https://logincdn.msauth.net/16.000.28666.10/content/images/ellipsis_grey_2b5d393db04a5e6e1f739cb266e</a>   | 0%        | Avira URL Cloud | safe  |      |
| <a href="https://pki.goog/repository/0">http://https://pki.goog/repository/0</a>                                                                                                                                                 | 0%        | URL Reputation  | safe  |      |
| <a href="https://mem.gfx.ms/meversion?partner=RetailStore2&amp;market=en-us&amp;uhf=1">http://https://mem.gfx.ms/meversion?partner=RetailStore2&amp;market=en-us&amp;uhf=1</a>                                                   | 0%        | URL Reputation  | safe  |      |
| <a href="http://www.carterandcone.coml">http://www.carterandcone.coml</a>                                                                                                                                                        | 0%        | URL Reputation  | safe  |      |
| <a href="https://172.217.23.78/">http://https://172.217.23.78/</a>                                                                                                                                                               | 0%        | Avira URL Cloud | safe  |      |
| <a href="https://aefd.nelreports.net/api/report?cat=bingrms">http://https://aefd.nelreports.net/api/report?cat=bingrms</a>                                                                                                       | 0%        | URL Reputation  | safe  |      |
| <a href="https://images.outbrainimg.com/transform/v3/eyJpdSI6ImYxODk5OTBhOWZjYjFmZjNjNmMxNDhmYjkzM2M3NzY1Mzk3Z">http://images.outbrainimg.com/transform/v3/eyJpdSI6ImYxODk5OTBhOWZjYjFmZjNjNmMxNDhmYjkzM2M3NzY1Mzk3Z</a>         | 0%        | Avira URL Cloud | safe  |      |
| <a href="http://crl.pki.goog/gsr2/gsr2.crl0?">http://crl.pki.goog/gsr2/gsr2.crl0?</a>                                                                                                                                            | 0%        | URL Reputation  | safe  |      |
| <a href="http://pki.goog/gsr2/GTSGIAG3.crt0">http://pki.goog/gsr2/GTSGIAG3.crt0)</a>                                                                                                                                             | 0%        | URL Reputation  | safe  |      |
| <a href="http://www.founder.com.cn/cn/bThe">http://www.founder.com.cn/cn/bThe</a>                                                                                                                                                | 0%        | URL Reputation  | safe  |      |
| <a href="https://adservice.google.co.uk/adsid/google/ui?gadssid=AORoGNQXg7AHkvG6J6S0TqGFa_0HynGV3_XxYfs4fLINJG">http://https://adservice.google.co.uk/adsid/google/ui?gadssid=AORoGNQXg7AHkvG6J6S0TqGFa_0HynGV3_XxYfs4fLINJG</a> | 0%        | Avira URL Cloud | safe  |      |
| <a href="http://www.typography.netD">http://www.typography.netD</a>                                                                                                                                                              | 0%        | URL Reputation  | safe  |      |
| <a href="http://fontfabrik.com">http://fontfabrik.com</a>                                                                                                                                                                        | 0%        | URL Reputation  | safe  |      |
| <a href="https://images.outbrainimg.com/transform/v3/eyJpdSI6ljK4YTZhZDAwNDEyNzQ2M2E3MGUyMWVvZmZlNmUyZjQ2MjBkM">http://images.outbrainimg.com/transform/v3/eyJpdSI6ljK4YTZhZDAwNDEyNzQ2M2E3MGUyMWVvZmZlNmUyZjQ2MjBkM</a>         | 0%        | Avira URL Cloud | safe  |      |
| <a href="http://www.sandoll.co.kr">http://www.sandoll.co.kr</a>                                                                                                                                                                  | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000/content/js/ConvergedLoginPaginatedStrings.en_5QoHC_ilFomb96MOpleJ">http://https://logincdn.msauth.net/16.000/content/js/ConvergedLoginPaginatedStrings.en_5QoHC_ilFomb96MOpleJ</a>   | 0%        | URL Reputation  | safe  |      |
| <a href="https://img.img-taboola.com/taboola/image/fetch/f_jpg%2Cq_auto%2Ch_311%2Cw_207%2Cc_fill%2Cg_faces:au">http://https://img.img-taboola.com/taboola/image/fetch/f_jpg%2Cq_auto%2Ch_311%2Cw_207%2Cc_fill%2Cg_faces:au</a>   | 0%        | URL Reputation  | safe  |      |
| <a href="http://www.founder.com.cn/cn">http://www.founder.com.cn/cn</a>                                                                                                                                                          | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000/content/js/OldConvergedLogin_PCore_xqcDwEKeDux9oCNjuqEZ-A2.js">http://https://logincdn.msauth.net/16.000/content/js/OldConvergedLogin_PCore_xqcDwEKeDux9oCNjuqEZ-A2.js</a>           | 0%        | URL Reputation  | safe  |      |
| <a href="http://cookies.onetrust.mgr.consensu.org/onetrust-logo.svg">http://cookies.onetrust.mgr.consensu.org/onetrust-logo.svg</a>                                                                                              | 0%        | URL Reputation  | safe  |      |
| <a href="https://logincdn.msauth.net/16.000.28230.00/images/microsoft_logo.svg?x=ee5c8d9fb6248c938fd0dc19370e">http://https://logincdn.msauth.net/16.000.28230.00/images/microsoft_logo.svg?x=ee5c8d9fb6248c938fd0dc19370e</a>   | 0%        | Avira URL Cloud | safe  |      |
| <a href="https://logincdn.msauth.net/16.000.28230.00/ConvergedLogin_PCore.js">http://https://logincdn.msauth.net/16.000.28230.00/ConvergedLogin_PCore.js</a>                                                                     | 0%        | Avira URL Cloud | safe  |      |

### Domains and IPs

### Contacted Domains

| Name                     | IP            | Active  | Malicious | Antivirus Detection                      | Reputation |
|--------------------------|---------------|---------|-----------|------------------------------------------|------------|
| ftp.vn-gpack.org         | 66.70.204.222 | true    | true      | • 1%, Virustotal, <a href="#">Browse</a> | unknown    |
| 240.163.3.0.in-addr.arpa | unknown       | unknown | false     |                                          | unknown    |

## URLs from Memory and Binaries

## Contacted IPs

## Public

| IP            | Domain           | Country | Flag                                                                              | ASN   | ASN Name | Malicious |
|---------------|------------------|---------|-----------------------------------------------------------------------------------|-------|----------|-----------|
| 66.70.204.222 | ftp.vn-gpack.org | Canada  |  | 16276 | OVHFR    | true      |

## Private

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

## General Information

|                                                    |                                                                                                                                                                                        |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Joe Sandbox Version:                               | 33.0.0 White Diamond                                                                                                                                                                   |
| Analysis ID:                                       | 473673                                                                                                                                                                                 |
| Start date:                                        | 30.08.2021                                                                                                                                                                             |
| Start time:                                        | 06:54:09                                                                                                                                                                               |
| Joe Sandbox Product:                               | CloudBasic                                                                                                                                                                             |
| Overall analysis duration:                         | 0h 9m 54s                                                                                                                                                                              |
| Hypervisor based Inspection enabled:               | false                                                                                                                                                                                  |
| Report type:                                       | light                                                                                                                                                                                  |
| Sample file name:                                  | 300821.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: | 20                                                                                                                                                                                     |
| 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.phis.troj.spyw.evad.winEXE@7/5@2/2                                                                                                                                              |
| EGA Information:                                   | Failed                                                                                                                                                                                 |
| HDC Information:                                   | <ul style="list-style-type: none"> <li>• Successful, ratio: 98.9% (good quality ratio 95.9%)</li> <li>• Quality average: 85.6%</li> <li>• Quality standard deviation: 23.2%</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:                                          | Show All                                                                                                                                                                               |

## Simulations

## Behavior and APIs

| Time     | Type            | Description                                        |
|----------|-----------------|----------------------------------------------------|
| 06:55:04 | API Interceptor | 6x Sleep call for process: 300821.PDF.exe modified |

## Joe Sandbox View / Context

### IPs

| Match         | Associated Sample Name / URL | SHA 256                  | Detection | Link                   | Context                                                                                             |
|---------------|------------------------------|--------------------------|-----------|------------------------|-----------------------------------------------------------------------------------------------------|
| 66.70.204.222 | Dolmas.xlsm.exe              | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>tesla-com.tk/Awele/SINOPHIL@L OKIRAW_HGi TKz109.bin</li></ul> |
|               | eurobank.pdf.exe             | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>tesla-com.tk/ford/SINOPHIL@LO KIRAW_GCLY OSF135.bin</li></ul> |

### Domains

No context

### ASN

| Match | Associated Sample Name / URL | SHA 256                  | Detection | Link                   | Context                                                       |
|-------|------------------------------|--------------------------|-----------|------------------------|---------------------------------------------------------------|
| OVHFR | sx5Yixa5GO.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | fzUNUBx4wC.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | DpO9nEw19q.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | d6Q0sXQjkY.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | VoFsQd7jwx.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | waKnA3vFb3                   | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>79.137.66.196</li></ul> |
|       | xQDLIutCAU.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | io9rjV248Z.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | LeSA7F7a96.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | loligang.arm                 | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>92.246.246.95</li></ul> |
|       | sG41vsm1Pe.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | 0tLYXVrJOe.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | RyGaFxV75v.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | uvVLne3r48.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | gMWalDKK37.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | hsRrR2KPY7.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | pCSou0ozZy.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | ZUd8KSXXVD.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | FWXckJ56fn.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |
|       | k2vbB70cV7.exe               | <a href="#">Get hash</a> | malicious | <a href="#">Browse</a> | <ul style="list-style-type: none"><li>158.69.65.151</li></ul> |

### JA3 Fingerprints

No context

### Dropped Files

No context

## Created / dropped Files

| C:\Users\user\AppData\Local\Microsoft\CLR_v4.0_32\UsageLogs\300821.PDF.exe.log |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process:                                                                       | C:\Users\user\Desktop\300821.PDF.exe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| File Type:                                                                     | ASCII text, with CRLF line terminators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Category:                                                                      | dropped                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Size (bytes):                                                                  | 1216                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Entropy (8bit):                                                                | 5.355304211458859                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Encrypted:                                                                     | false                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| SSDEEP:                                                                        | 24:MLUE4K5E4Ks2E1qE4qXKDE4KhK3VZ9pKhPKIE4oKFHKHkoZAE4Kzr7FE4x84j:MIHK5HKXE1qHiYHKhQnoPtHoxHhAHKzr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MD5:                                                                           | FED34146BF2F2FA59DCF8702FCC8232E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SHA1:                                                                          | B03BFEA175989D989850CF06FE5E7BBF56EAA00A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SHA-256:                                                                       | 123BE4E3590609A008E85501243AF5BC53FA0C26C82A92881B8879524F8C0D5C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SHA-512:                                                                       | 1CC89F2ED1DBD70628FA1DC41A32BA0BFA3E81EAE1A1CF3C5F6A48F2DA0BF1F21A5001B8A18B04043C5B8FE4FBE663068D86AA8C4BD8E17933F75687C3178F6F6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Malicious:                                                                     | <b>true</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Reputation:                                                                    | high, very likely benign file                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Preview:                                                                       | 1,"fusion","GAC",0..1,"WinRT","NotApp",1..2,"System.Windows.Forms, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089",0..3,"System, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089","C:\Windows\assembly\NativeImages_v4.0.30319_32\System\4f0a7eefa3cd3e0ba98b5ebddbcb72e6\System.ni.dll",0..2,"System.Drawing, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a",0..3,"System.Core, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089","C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Core\1d8480152e0da9a60ad49c6d16a3b6d\System.Core.ni.dll",0..3,"System.Configuration, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a","C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Configuration\8d67d92724ba494b6c7fd089d6f25b48\System.Configuration.ni.dll",0..3,"System.Xml, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089","C:\Windows\assembly\NativeImages_v4.0.30319_32\System.Xml\1b219d4630d26b88041b59c21 |

| C:\Users\user\AppData\Local\Temp\bhvE2B1.tmp |                                                                                                                                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Process:                                     | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe                                                                                          |
| File Type:                                   | Extensible storage engine DataBase, version 0x620, checksum 0x6c81e4e3, page size 32768, DirtyShutdown, Windows version 10.0                   |
| Category:                                    | dropped                                                                                                                                        |
| Size (bytes):                                | 29884416                                                                                                                                       |
| Entropy (8bit):                              | 1.0563745804808284                                                                                                                             |
| Encrypted:                                   | false                                                                                                                                          |
| SSDEEP:                                      | 24576:GjbVPt8HVmyYw781dfXy7R4aUpPX7Cr6f63rsLOZgv:8NyvArO0v                                                                                     |
| MD5:                                         | AB607EDB401FC1704B6A7FA5E5208D71                                                                                                               |
| SHA1:                                        | 747438185721FADCD454E338D8F5B45E47D56336                                                                                                       |
| SHA-256:                                     | D4786F79983EDE99BE61190781F57AF3A290175F890D3CB09CB2F963A20BACFF                                                                               |
| SHA-512:                                     | 7B7490EDD7BFD6E3B86BCCFB463EF67D072DABBE894678337A5F047316A0FBD542CC215B30A61915F383F102CF5E8AE69A992A7296D2EDE536A78CD7C29CF90                |
| Malicious:                                   | false                                                                                                                                          |
| Reputation:                                  | low                                                                                                                                            |
| Preview:                                     | l.....?....._e.*....w.....^8.....#...xE.-6...yQ.h:.....b...*...w.....{.....B.....<br>.....36...y.....<br>.....Al.7...y.....7...y.....<br>..... |

| C:\Users\user\AppData\Local\Temp\holderwb.txt |                                                                                                                                 |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Process:                                      | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe                                                                           |
| File Type:                                    | Little-endian UTF-16 Unicode text, with no line terminators                                                                     |
| Category:                                     | dropped                                                                                                                         |
| Size (bytes):                                 | 2                                                                                                                               |
| Entropy (8bit):                               | 1.0                                                                                                                             |
| Encrypted:                                    | false                                                                                                                           |
| SSDEEP:                                       | 3:Qn:Qn                                                                                                                         |
| MD5:                                          | F3B25701FE362EC84616A93A45CE9998                                                                                                |
| SHA1:                                         | D62636D8CAEC13F04E28442A0A6FA1AFEB024BBB                                                                                        |
| SHA-256:                                      | B3D510EF04275CA8E698E5B3CBB0ECE3949EF9252F0CDC839E9EE347409A2209                                                                |
| SHA-512:                                      | 98C5F56F3DE340690C139E58EB7DAC111979F0D4DFFE9C4B24FF849510F4B6FFA9FD608C0A3DE9AC3C9FD2190F0EFAF715309061490F9755A9BFDf1C54CAOD4 |
| Malicious:                                    | false                                                                                                                           |
| Reputation:                                   | high, very likely benign file                                                                                                   |
| Preview:                                      | ..                                                                                                                              |

| C:\Users\user\AppData\Roaming\pid.txt |                                      |
|---------------------------------------|--------------------------------------|
| Process:                              | C:\Users\user\Desktop\300821.PDF.exe |
| File Type:                            | ASCII text, with no line terminators |
| Category:                             | dropped                              |
| Size (bytes):                         | 4                                    |
| Entropy (8bit):                       | 1.5                                  |

|                                       |                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| C:\Users\user\AppData\Roaming\pid.txt |                                                                                                                                  |
| Encrypted:                            | false                                                                                                                            |
| SSDEEP:                               | 3:Dd:B                                                                                                                           |
| MD5:                                  | 5A2756A3CB9CDE852CAD3C97E120B656                                                                                                 |
| SHA1:                                 | 1BA65BC81EE7D284E60782ECD3308EC517B73B82                                                                                         |
| SHA-256:                              | 95F180E417E425F00E97C5A95BFE534C0B1C90D9D8115C9ACAD2C04C8D6CB246                                                                 |
| SHA-512:                              | 06BFD8C0391AB013E57F0B422A2AFDF73C810ABC0AFFE45717EAAA5FD68F0BCDA8D26D42F6B064D693951C9C481E466393DA2020D2F82F898EF84BB343516F74 |
| Malicious:                            | false                                                                                                                            |
| Reputation:                           | low                                                                                                                              |
| Preview:                              | 2848                                                                                                                             |

|                                          |                                                                                                                                |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| C:\Users\user\AppData\Roaming\pidloc.txt |                                                                                                                                |
| Process:                                 | C:\Users\user\Desktop\300821.PDF.exe                                                                                           |
| File Type:                               | ASCII text, with no line terminators                                                                                           |
| Category:                                | dropped                                                                                                                        |
| Size (bytes):                            | 37                                                                                                                             |
| Entropy (8bit):                          | 4.247030650103631                                                                                                              |
| Encrypted:                               | false                                                                                                                          |
| SSDEEP:                                  | 3:oNt+WfWWWVEXoA:oNwwVWmoA                                                                                                     |
| MD5:                                     | 132D6BAEE131E302BCF347807AA06DE3                                                                                               |
| SHA1:                                    | 0CC45AF10E562B4D26A27A5B6731FCFC7DC6F01                                                                                        |
| SHA-256:                                 | 9DE550232E6E9D639391A3D4A1E7A8B3F745B822D43856C562F5DD7439F5EB93                                                               |
| SHA-512:                                 | C32670ADCBE052B3909B9837E7BDD72E89BBEA23B806B16E44C49486EF92A795DED85880D15E836088D1EF80F1D5556B03E5A7CC0B0ACE80844677CFF7E2DE |
| Malicious:                               | false                                                                                                                          |
| Reputation:                              | low                                                                                                                            |
| Preview:                                 | C:\Users\user\Desktop\300821.PDF.exe                                                                                           |

Static File Info

|                       |                                                                                                                                                                                                                                                                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General               |                                                                                                                                                                                                                                                                                                                                          |
| File type:            | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows                                                                                                                                                                                                                                                                     |
| Entropy (8bit):       | 7.076704069722482                                                                                                                                                                                                                                                                                                                        |
| 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:            | 300821.PDF.exe                                                                                                                                                                                                                                                                                                                           |
| File size:            | 987136                                                                                                                                                                                                                                                                                                                                   |
| MD5:                  | ddfc57b8fd3e5e0f81dee8ead0e38518                                                                                                                                                                                                                                                                                                         |
| SHA1:                 | ca35000ed1844f30e932d8903633e4beb519967f                                                                                                                                                                                                                                                                                                 |
| SHA256:               | c1cd0692836798f5cb7e9335f4547a2650b77cf456193cbe7e384906a20c0603                                                                                                                                                                                                                                                                         |
| SHA512:               | 083bc3c27ddefbf541b91ef71728a2e3831563be171f4d7ca63dea9e04357533d2bf345c7ccdcdd551cc8220826d79f894b43f1de2ae8d3fd17a39c1bf838fcc                                                                                                                                                                                                         |
| SSDEEP:               | 12288:MeTvtJpA3OXv2BFokZRhXQ5TZaRPIPO0E09w rp:MeDtJJSO/2fxA5TZaP20Eh9                                                                                                                                                                                                                                                                    |
| File Content Preview: | MZ.....@.....!..L.!Th<br>is program cannot be run in DOS mode...\$.....PE..L....<br>",a.....0.....\$. ..@.. ..<br>..@.....                                                                                                                                                                                                               |

File Icon

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

## Network Behavior

### Snort IDS Alerts

| Timestamp                | Protocol | SID     | Message                         | Source Port | Dest Port | Source IP   | Dest IP       |
|--------------------------|----------|---------|---------------------------------|-------------|-----------|-------------|---------------|
| 08/30/21-06:55:26.317879 | TCP      | 2020410 | ET TROJAN HawkEye Keylogger FTP | 49723       | 21        | 192.168.2.4 | 66.70.204.222 |

### Network Port Distribution

### TCP Packets

### UDP Packets

### DNS Queries

| Timestamp                            | Source IP   | Dest IP | Trans ID | OP Code            | Name                     | Type                 | Class       |
|--------------------------------------|-------------|---------|----------|--------------------|--------------------------|----------------------|-------------|
| Aug 30, 2021 06:55:09.080276966 CEST | 192.168.2.4 | 8.8.8.8 | 0x9257   | Standard query (0) | 240.163.3.0.in-addr.arpa | PTR (Pointer record) | IN (0x0001) |
| Aug 30, 2021 06:55:25.124269009 CEST | 192.168.2.4 | 8.8.8.8 | 0xc7d5   | Standard query (0) | ftp.vn-gpack.org         | A (IP address)       | IN (0x0001) |

### DNS Answers

| Timestamp                            | Source IP | Dest IP     | Trans ID | Reply Code     | Name                     | CName                        | Address       | Type                   | Class       |
|--------------------------------------|-----------|-------------|----------|----------------|--------------------------|------------------------------|---------------|------------------------|-------------|
| Aug 30, 2021 06:55:09.113172054 CEST | 8.8.8.8   | 192.168.2.4 | 0x9257   | Name error (3) | 240.163.3.0.in-addr.arpa | none                         | none          | PTR (Pointer record)   | IN (0x0001) |
| Aug 30, 2021 06:55:17.953084946 CEST | 8.8.8.8   | 192.168.2.4 | 0x52b2   | No error (0)   | a-0019.a.dns.azurefd.net | a-0019.standard.a-msedge.net |               | CNAME (Canonical name) | IN (0x0001) |
| Aug 30, 2021 06:55:25.328469038 CEST | 8.8.8.8   | 192.168.2.4 | 0xc7d5   | No error (0)   | ftp.vn-gpack.org         |                              | 66.70.204.222 | A (IP address)         | IN (0x0001) |

### FTP Packets

| Timestamp                            | Source Port | Dest Port | Source IP     | Dest IP       | Commands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------|-------------|-----------|---------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aug 30, 2021 06:55:25.554527044 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 220----- Welcome to Pure-FTPd [privsep] [TLS] -----<br>220----- Welcome to Pure-FTPd [privsep] [TLS] -----220-You are user number 5 of 50 allowed.<br>220----- Welcome to Pure-FTPd [privsep] [TLS] -----220-You are user number 5 of 50 allowed.220-Local time is now 08:55. Server port: 21.<br>220----- Welcome to Pure-FTPd [privsep] [TLS] -----220-You are user number 5 of 50 allowed.220-Local time is now 08:55. Server port: 21.220-This is a private system - No anonymous login<br>220----- Welcome to Pure-FTPd [privsep] [TLS] -----220-You are user number 5 of 50 allowed.220-Local time is now 08:55. Server port: 21.220-This is a private system - No anonymous login220-IPv6 connections are also welcome on this server.<br>220----- Welcome to Pure-FTPd [privsep] [TLS] -----220-You are user number 5 of 50 allowed.220-Local time is now 08:55. Server port: 21.220-This is a private system - No anonymous login220-IPv6 connections are also welcome on this server.220 You will be disconnected after 15 minutes of inactivity. |
| Aug 30, 2021 06:55:25.555402994 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | USER Nwwwlooggs@vn-gpack.org                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Aug 30, 2021 06:55:25.661725044 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 331 User Nwwwlooggs@vn-gpack.org OK. Password required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Aug 30, 2021 06:55:25.661969900 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | PASS @!V8[3!IPsE1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Aug 30, 2021 06:55:25.780798912 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 230 OK. Current restricted directory is /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Aug 30, 2021 06:55:25.887681007 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 504 Unknown command                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Aug 30, 2021 06:55:25.888890028 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | PWD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Aug 30, 2021 06:55:25.995340109 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 257 "/" is your current location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Aug 30, 2021 06:55:25.995663881 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | TYPE I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Aug 30, 2021 06:55:26.102369070 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 200 TYPE is now 8-bit binary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Aug 30, 2021 06:55:26.102632046 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | PASV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Timestamp                            | Source Port | Dest Port | Source IP     | Dest IP       | Commands                                                                                                                         |
|--------------------------------------|-------------|-----------|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|
| Aug 30, 2021 06:55:26.209256887 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 227 Entering Passive Mode (66,70,204,222,202,233)                                                                                |
| Aug 30, 2021 06:55:26.317878962 CEST | 49723       | 21        | 192.168.2.4   | 66.70.204.222 | STOR HawkEye_Keylogger_Stealer_Records_238576 8.30.2021 7:03:04 AM.txt                                                           |
| Aug 30, 2021 06:55:26.427908897 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 150 Accepted data connection                                                                                                     |
| Aug 30, 2021 06:55:26.541986942 CEST | 21          | 49723     | 66.70.204.222 | 192.168.2.4   | 226-File successfully transferred<br>226-File successfully transferred226 0.114 seconds (measured here), 13.08 Kbytes per second |

Code Manipulations

Statistics

Behavior

 Click to jump to process

System Behavior

Analysis Process: 300821.PDF.exe PID: 4816 Parent PID: 6592

General

|                               |                                        |
|-------------------------------|----------------------------------------|
| Start time:                   | 06:54:57                               |
| Start date:                   | 30/08/2021                             |
| Path:                         | C:\Users\user\Desktop\300821.PDF.exe   |
| Wow64 process (32bit):        | true                                   |
| Commandline:                  | 'C:\Users\user\Desktop\300821.PDF.exe' |
| Imagebase:                    | 0xa60000                               |
| File size:                    | 987136 bytes                           |
| MD5 hash:                     | DDFC57B8FD3E5E0F81DEE8EAD0E38518       |
| 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_AntiVM_3, Description: Yara detected AntiVM_3, Source: 00000000.00000002.665567909.0000000002FA5000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: RAT_HawkEye, Description: Detects HawkEye RAT, Source: 00000000.00000002.667948277.0000000004BA1000.00000004.00000001.sdmp, Author: Kevin Breen &lt;kevin@techanarchy.net&gt;</li> <li>• Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000000.00000002.667948277.0000000004BA1000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000000.00000002.667948277.0000000004BA1000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: JoeSecurity_WebBrowserPassView, Description: Yara detected WebBrowserPassView password recovery tool, Source: 00000000.00000002.667948277.0000000004BA1000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: Hawkeye, Description: detect HawkEye in memory, Source: 00000000.00000002.667948277.0000000004BA1000.00000004.00000001.sdmp, Author: JPCERT/CC Incident Response Group</li> <li>• Rule: RAT_HawkEye, Description: Detects HawkEye RAT, Source: 00000000.00000002.666209862.000000000400E000.00000004.00000001.sdmp, Author: Kevin Breen &lt;kevin@techanarchy.net&gt;</li> <li>• Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000000.00000002.666209862.000000000400E000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000000.00000002.666209862.000000000400E000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: JoeSecurity_WebBrowserPassView, Description: Yara detected WebBrowserPassView password recovery tool, Source: 00000000.00000002.666209862.000000000400E000.00000004.00000001.sdmp, Author: Joe Security</li> <li>• Rule: Hawkeye, Description: detect HawkEye in memory, Source: 00000000.00000002.666209862.000000000400E000.00000004.00000001.sdmp, Author: JPCERT/CC Incident Response Group</li> </ul> |
| Reputation:   | low                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

#### File Activities

Show Windows behavior

#### File Created

#### File Written

#### File Read

Analysis Process: 300821.PDF.exe PID: 2848 Parent PID: 4816

#### General

|                               |                                      |
|-------------------------------|--------------------------------------|
| Start time:                   | 06:55:05                             |
| Start date:                   | 30/08/2021                           |
| Path:                         | C:\Users\user\Desktop\300821.PDF.exe |
| Wow64 process (32bit):        | true                                 |
| Commandline:                  | C:\Users\user\Desktop\300821.PDF.exe |
| Imagebase:                    | 0x6f0000                             |
| File size:                    | 987136 bytes                         |
| MD5 hash:                     | DDFC57B8FD3E5E0F81DEE8EAD0E38518     |
| 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_MailPassView, Description: Yara detected MailPassView, Source: 00000005.00000002.916254009.0000000003B61000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_WebBrowserPassView, Description: Yara detected WebBrowserPassView password recovery tool, Source: 00000005.00000002.916254009.0000000003B61000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: RAT_HawkEye, Description: Detects HawkEye RAT, Source: 00000005.00000002.914785913.000000000402000.00000040.00000001.sdmp, Author: Kevin Breen &lt;kevin@technarchy.net&gt;</li> <li>Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000005.00000002.914785913.000000000402000.00000040.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000005.00000002.914785913.000000000402000.00000040.00000001.sdmp, Author: Joe Security</li> <li>Rule: JoeSecurity_WebBrowserPassView, Description: Yara detected WebBrowserPassView password recovery tool, Source: 00000005.00000002.914785913.000000000402000.00000040.00000001.sdmp, Author: Joe Security</li> <li>Rule: Hawkeye, Description: detect HawkEye in memory, Source: 00000005.00000002.914785913.000000000402000.00000040.00000001.sdmp, Author: JPCERT/CC Incident Response Group</li> <li>Rule: JoeSecurity_HawkEye, Description: Yara detected HawkEye Keylogger, Source: 00000005.00000002.915489413.0000000002B61000.00000004.00000001.sdmp, Author: Joe Security</li> <li>Rule: Hawkeye, Description: detect HawkEye in memory, Source: 00000005.00000002.915489413.0000000002B61000.00000004.00000001.sdmp, Author: JPCERT/CC Incident Response Group</li> </ul> |
| Reputation:   | low                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

#### File Activities

Show Windows behavior

#### File Created

#### File Deleted

#### File Written

#### File Read

#### Registry Activities

Show Windows behavior

#### Key Value Modified

### Analysis Process: vbc.exe PID: 1668 Parent PID: 2848

| General                       |                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Start time:                   | 06:55:15                                                                                                                                                                                                                                                       |
| Start date:                   | 30/08/2021                                                                                                                                                                                                                                                     |
| Path:                         | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe                                                                                                                                                                                                          |
| Wow64 process (32bit):        | true                                                                                                                                                                                                                                                           |
| Commandline:                  | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe /stext 'C:\Users\user\AppData\Local\Temp\holderwb.txt'                                                                                                                                                   |
| Imagebase:                    | 0x400000                                                                                                                                                                                                                                                       |
| File size:                    | 1171592 bytes                                                                                                                                                                                                                                                  |
| MD5 hash:                     | C63ED21D5706A527419C9FBD730FFB2E                                                                                                                                                                                                                               |
| Has elevated privileges:      | true                                                                                                                                                                                                                                                           |
| Has administrator privileges: | true                                                                                                                                                                                                                                                           |
| Programmed in:                | C, C++ or other language                                                                                                                                                                                                                                       |
| Yara matches:                 | <ul style="list-style-type: none"> <li>Rule: JoeSecurity_WebBrowserPassView, Description: Yara detected WebBrowserPassView password recovery tool, Source: 00000008.00000002.693074434.000000000400000.00000040.00000001.sdmp, Author: Joe Security</li> </ul> |
| Reputation:                   | high                                                                                                                                                                                                                                                           |

#### File Activities

Show Windows behavior

#### File Created

File Deleted

File Written

File Read

Analysis Process: vbc.exe PID: 5604 Parent PID: 2848

## General

|                               |                                                                                                                                                                                                                            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Start time:                   | 06:55:15                                                                                                                                                                                                                   |
| Start date:                   | 30/08/2021                                                                                                                                                                                                                 |
| Path:                         | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe                                                                                                                                                                      |
| Wow64 process (32bit):        | true                                                                                                                                                                                                                       |
| Commandline:                  | C:\Windows\Microsoft.NET\Framework\v2.0.50727\vbc.exe /stext 'C:\Users\user\AppData\Local\Temp\holdermail.txt'                                                                                                             |
| Imagebase:                    | 0x400000                                                                                                                                                                                                                   |
| File size:                    | 1171592 bytes                                                                                                                                                                                                              |
| MD5 hash:                     | C63ED21D5706A527419C9FBD730FFB2E                                                                                                                                                                                           |
| Has elevated privileges:      | true                                                                                                                                                                                                                       |
| Has administrator privileges: | true                                                                                                                                                                                                                       |
| Programmed in:                | C, C++ or other language                                                                                                                                                                                                   |
| Yara matches:                 | <ul style="list-style-type: none"><li>Rule: JoeSecurity_MailPassView, Description: Yara detected MailPassView, Source: 00000009.00000002.684649797.0000000000400000.00000040.00000001.sdmp, Author: Joe Security</li></ul> |
| Reputation:                   | high                                                                                                                                                                                                                       |

## File Activities

Show Windows behavior

File Created

## Disassembly

## Code Analysis