ID: 412180
Sample Name: RFQ 35465756.exe
Cookbook: default.jbs
Time: 13:20:06
Date: 12/05/2021
Version: 32.0.0 Black Diamond

Table of Contents

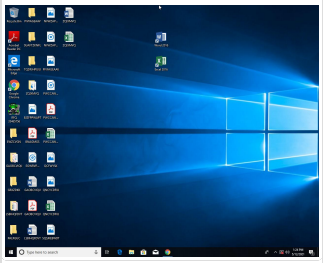
Analysis Report RFQ 35465756.exe

Overview

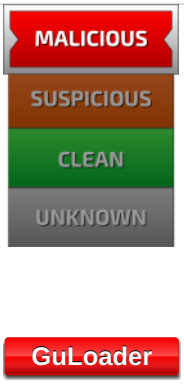
General Information

Sample Name:	RFQ 35465756.exe
Analysis ID:	412180
MD5:	a00e24b88a7ffa3..
SHA1:	acb2d22c4a94ffa..
SHA256:	0089a67b8891a8..
Tags:	GuLoader
Infos:	

Most interesting Screenshot:



Detection



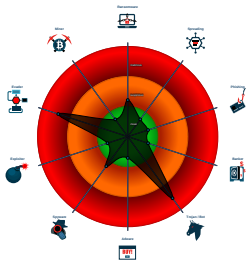
GuLoader

Score:	92
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

- Found malware configuration
- Multi AV Scanner detection for subm…
- Yara detected GuLoader
- Yara detected GuLoader
- C2 URLs / IPs found in malware con…
- Contains functionality to detect hard…
- Detected RDTSC dummy instruction…
- Found potential dummy code loops (…
- Tries to detect virtualization through…
- Abnormal high CPU Usage
- Contains functionality for execution …
- Contains functionality to call native f…
- Contains functionality to query CPU …
- Contains functionality to read the PEB

Classification



Startup

- **System is w10x64**
- RFQ 35465756.exe (PID: 5636 cmdline: 'C:\Users\user\Desktop\RFQ 35465756.exe' MD5: A00E24B88A7FFA3E82D9FCA15E0C46F1)
- **cleanup**

Malware Configuration

Threatname: GuLoader

```
{
  "Payload URL": "https://drive.google.com/uc?export=download&id=1tugb1Cx6PcCD1YoZNcA5MNpIX8ZFbd_s"
}
```

Yara Overview

Initial Sample

Source	Rule	Description	Author	Strings
RFQ 35465756.exe	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Memory Dumps

Source	Rule	Description	Author	Strings
00000000.00000002.761118187.00000000022A0000.00000040.00000001.sdmp	JoeSecurity_GuLoader_2	Yara detected GuLoader	Joe Security	
00000000.00000000.235938120.000000000401000.00000020.00020000.sdmp	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	
00000000.00000002.759094776.000000000401000.00000020.00020000.sdmp	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

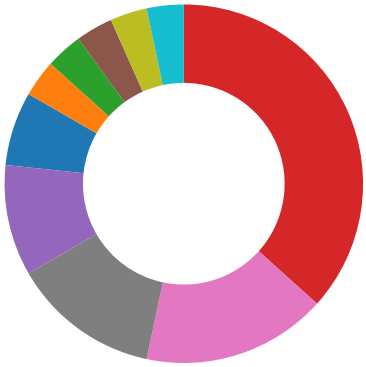
Unpacked PEs

Source	Rule	Description	Author	Strings
0.0.RFQ 35465756.exe.400000.0.unpack	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	
0.2.RFQ 35465756.exe.400000.0.unpack	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Sigma Overview

No Sigma rule has matched

Signature Overview



Click to jump to signature section

- AV Detection
- Compliance
- Networking
- System Summary
- Data Obfuscation
- Hooking and other Techniques for Hiding and Protection
- Malware Analysis System Evasion
- Anti Debugging
- HIPS / PFW / Operating System Protection Evasion
- Language, Device and Operating System Detection

AV Detection:

Found malware configuration

Multi AV Scanner detection for submitted file

Networking:

C2 URLs / IPs found in malware configuration

Data Obfuscation:

Yara detected GuLoader

Yara detected GuLoader

Malware Analysis System Evasion:

Contains functionality to detect hardware virtualization (CPUID execution measurement)

Detected RDTSC dummy instruction sequence (likely for instruction hammering)

Tries to detect virtualization through RDTSC time measurements

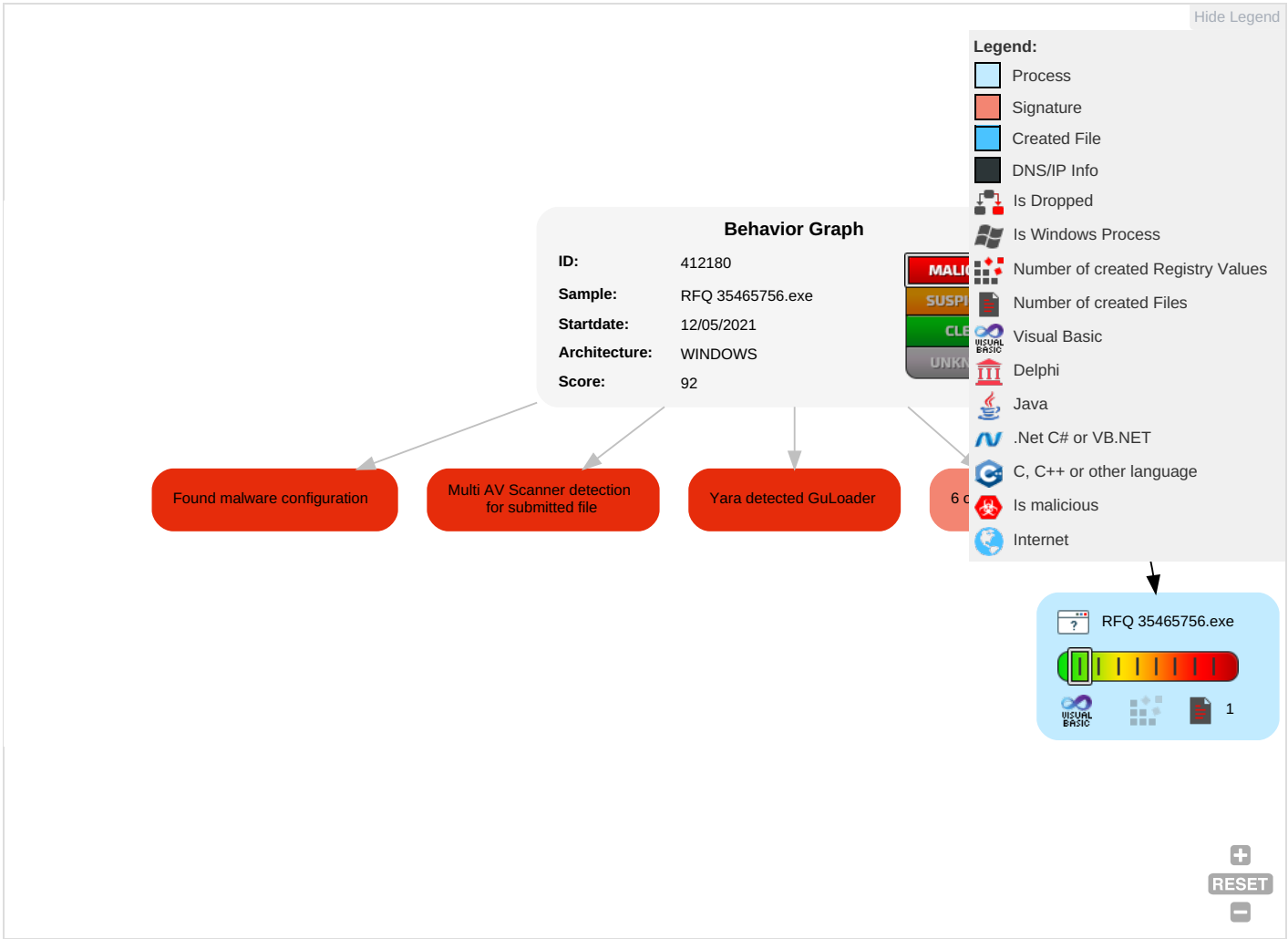
Anti Debugging:

Found potential dummy code loops (likely to delay analysis)

Mitre Att&ck Matrix

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects	R S E
Valid Accounts	Windows Management Instrumentation	Path Interception	Process Injection 1	Virtualization/Sandbox Evasion 1 1	OS Credential Dumping	Security Software Discovery 4 1	Remote Services	Archive Collected Data 1	Exfiltration Over Other Network Medium	Encrypted Channel 1	Eavesdrop on Insecure Network Communication	R T W A
Default Accounts	Scheduled Task/Job	Boot or Logon Initialization Scripts	Boot or Logon Initialization Scripts	Process Injection 1	LSASS Memory	Virtualization/Sandbox Evasion 1 1	Remote Desktop Protocol	Data from Removable Media	Exfiltration Over Bluetooth	Application Layer Protocol 1	Exploit SS7 to Redirect Phone Calls/SMS	R W W A
Domain Accounts	At (Linux)	Logon Script (Windows)	Logon Script (Windows)	Obfuscated Files or Information 1	Security Account Manager	Process Discovery 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Steganography	Exploit SS7 to Track Device Location	O D C B
Local Accounts	At (Windows)	Logon Script (Mac)	Logon Script (Mac)	Binary Padding	NTDS	System Information Discovery 3 1 1	Distributed Component Object Model	Input Capture	Scheduled Transfer	Protocol Impersonation	SIM Card Swap	

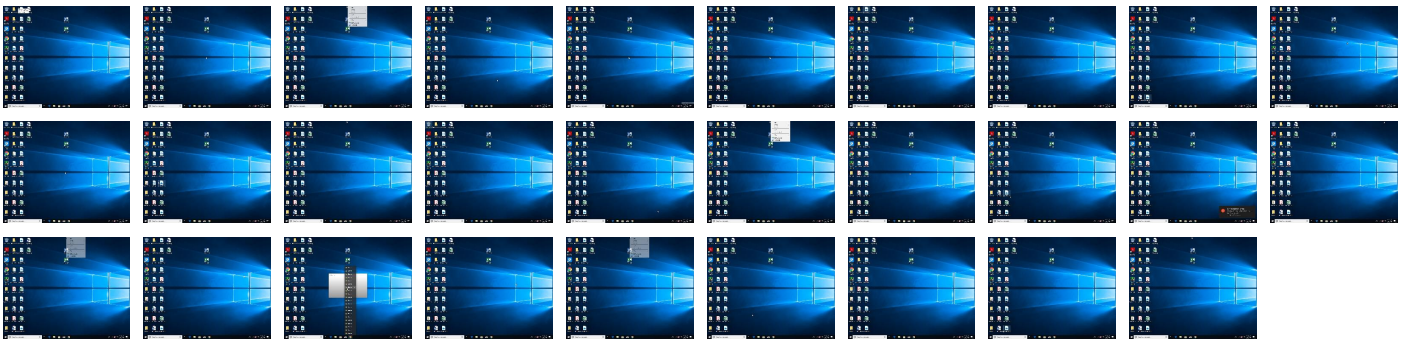
Behavior Graph



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
RFQ 35465756.exe	34%	Virustotal		Browse
RFQ 35465756.exe	71%	ReversingLabs	Win32.Trojan.Vebzenpak	

Dropped Files

No Antivirus matches

Unpacked PE Files

No Antivirus matches

Domains

No Antivirus matches

URLs

No Antivirus matches

Domains and IPs

Contacted Domains

No contacted domains info

Contacted IPs

No contacted IP infos

General Information

Joe Sandbox Version:	32.0.0 Black Diamond
Analysis ID:	412180
Start date:	12.05.2021
Start time:	13:20:06
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 7m 43s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	RFQ 35465756.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:	30
Number of new started drivers analysed:	0
Number of existing processes analysed:	0
Number of existing drivers analysed:	0
Number of injected processes analysed:	0
Technologies:	• HCA enabled • EGA enabled • HDC enabled • AMSI enabled
Analysis Mode:	default
Analysis stop reason:	Timeout
Detection:	MAL
Classification:	mal92.troj.evad.winEXE@1/0@0/0
EGA Information:	Failed
HDC Information:	Failed
HCA Information:	• Successful, ratio: 53% • Number of executed functions: 0 • Number of non-executed functions: 0
Cookbook Comments:	• Adjust boot time • Enable AMSI • Found application associated with file extension: .exe • Override analysis time to 240s for sample files taking high CPU consumption

Simulations

Behavior and APIs

No simulations

Joe Sandbox View / Context

IPs

No context

Domains

No context

ASN

No context

JA3 Fingerprints

No context

Dropped Files

No context

Created / dropped Files

No created / dropped files found

Static File Info

General

File type:	PE32 executable (GUI) Intel 80386, for MS Windows
Entropy (8bit):	5.699599734903516
TrID:	• Win32 Executable (generic) a (10002005/4) 99.15% • Win32 Executable Microsoft Visual Basic 6 (82127/2) 0.81% • Generic Win/DOS Executable (2004/3) 0.02% • DOS Executable Generic (2002/1) 0.02% • Autodesk FLIC Image File (extensions: flc, fli, cel) (7/3) 0.00%
File name:	RFQ 35465756.exe
File size:	81920
MD5:	a00e24b88a7ffa3e82d9fca15e0c46f1
SHA1:	acb2d22c4a94ffa77422868a24118fe943f7526e
SHA256:	0089a67b8891a809e2c7699b1d97e0d1286756c801aecc20a200a13b049ecb94
SHA512:	ba1d74f77c12a96914f47ad7d309c624d4bc3cda436242b5af2384b7926748b3c4fece81e234edc5bcf5ee31af35e79d5dc46fc41984c61b494f16b5e2edc814
SSDEEP:	768:+ED42sgavsrBktS2lW8NXfOz9TnnQD7DJYyVTDckBYYqDirMiYngfD:5D43gahhNXfOzO/1YyVTD5qDirMinfD

General

File Content Preview:	MZ.....@.....!..L.!This program cannot be run in DOS mode....$.....#...B...B...B..L^...B...`...B...d...B..Rich.B.....PE..L.....`.....0..... ....@.....

File Icon

Icon Hash:	b09298b8cc8a19c6

Static PE Info

General

Entrypoint:	0x4013f0
Entrypoint Section:	.text
Digitally signed:	false
Imagebase:	0x400000
Subsystem:	windows gui
Image File Characteristics:	LOCAL_SYMS_STRIPPED, 32BIT_MACHINE, EXECUTABLE_IMAGE, LINE_NUMS_STRIPPED, RELOCS_STRIPPED
DLL Characteristics:	
Time Stamp:	0x6099A205 [Mon May 10 21:13:41 2021 UTC]
TLS Callbacks:	
CLR (.Net) Version:	
OS Version Major:	4
OS Version Minor:	0
File Version Major:	4
File Version Minor:	0
Subsystem Version Major:	4
Subsystem Version Minor:	0
Import Hash:	ec8e962978786706cf0189109090c85e

Entrypoint Preview

Instruction
push 00401F14h
call 00007F6A808A5673h
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
xor byte ptr [eax], al
add byte ptr [eax], al
inc eax
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [D6A068AFh], cl
add eax, 75BF4B14h
leave
jo 00007F6A808A56D4h
or bl, FFFFFFCBh
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add dword ptr [eax], eax
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
push eax
imul ebp, dword ptr [esi+6Bh], 6F747265h
outsb
imul esi, dword ptr [ebx+6Dh], 00000000h
add byte ptr [eax], al

Instruction
add byte ptr [eax], al
dec esp
xor dword ptr [eax], eax
push es
or esp, ebp
stosd
sar byte ptr [ebx-33h], cl
inc ebx
mov dl, 20h
mov ebx, A7C8268Bh
loopne 00007F6A808A56DAh
jmp 00007F6A58A34396h
sbb eax, dword ptr [ebx-66h]
pslld mm1, mm0
mov dl, B9h
pop esp
imul edi, dword ptr [edx], 9933AD4Fh
iretw
adc dword ptr [edi+00AA000Ch], esi
pushad
rcl dword ptr [ebx+00000000h], cl
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
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add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
sbb cl, byte ptr [edx]
add byte ptr [eax], al
adc al, 09h
add byte ptr [eax], al
add byte ptr [ecx], cl
add byte ptr [ecx+ebp*2+64h], ah
jc 00007F6A808A56EDh
outsb
add byte ptr [di], cl
add dword ptr [ecx], ecx
add byte ptr [ebp+6Eh], dl
jnc 00007F6A808A56E7h
arpl word ptr [ebp+00h], si

Data Directories

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_EXPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_IMPORT	0x11044	0x28	.text
IMAGE_DIRECTORY_ENTRY_RESOURCE	0x14000	0xc04	.rsrc
IMAGE_DIRECTORY_ENTRY_EXCEPTION	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_SECURITY	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_BASERELOC	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_DEBUG	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_COPYRIGHT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_GLOBALPTR	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_TLS	0x0	0x0	

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_LOAD_CONFIG	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_BOUND_IMPORT	0x228	0x20	
IMAGE_DIRECTORY_ENTRY_IAT	0x1000	0x158	.text
IMAGE_DIRECTORY_ENTRY_DELAY_IMPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_COM_DESCRIPTOR	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_RESERVED	0x0	0x0	

Sections

Name	Virtual Address	Virtual Size	Raw Size	Xored PE	ZLIB Complexity	File Type	Entropy	Characteristics
.text	0x1000	0x10644	0x11000	False	0.422076056985	data	6.18336201538	IMAGE_SCN_MEM_EXECUTE, IMAGE_SCN_CNT_CODE, IMAGE_SCN_MEM_READ
.data	0x12000	0x11f4	0x1000	False	0.00634765625	data	0.0	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_WRITE, IMAGE_SCN_MEM_READ
.rsrc	0x14000	0xc04	0x1000	False	0.2880859375	data	3.00528047699	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ

Resources

Name	RVA	Size	Type	Language	Country
RT_ICON	0x1435c	0x8a8	data		
RT_GROUP_ICON	0x14348	0x14	data		
RT_VERSION	0x140f0	0x258	data	Chinese	Taiwan

Imports

DLL	Import
MSVBVM60.DLL	_CIcos, _adj_fptan, __vbaVarMove, __vbaFreeVar, __vbaAryMove, __vbaStrVarMove, __vbaFreeVarList, _adj_fdiv_m64, __vbaFreeObjList, _adj_fprem1, __vbaRecAnsiToUni, __vbaStrCat, __vbaSetSystemError, __vbaHresultCheckObj, __vbaLenVar, _adj_fdiv_m32, __vbaAryDestruct, __vbaVarForInit, __vbaObjSet, _adj_fdiv_m16i, __vbaObjSetAddref, _adj_fdivr_m16i, __vbaVarTstLt, _CIsin, __vbaChkstk, EVENT_SINK_AddRef, __vbaGenerateBoundsError, __vbaStrCmp, __vbaAryConstruct2, __vbaVarTstEq, __vbaI2I4, DllFunctionCall, _adj_fpatan, __vbaLateIdCallLd, __vbaRecUniToAnsi, EVENT_SINK_Release, _CIsqrt, EVENT_SINK_QueryInterface, __vbaExceptHandler, _adj_fprem, _adj_fdivr_m64, __vbaFPException, __vbaStrVarVal, _CIlog, __vbaNew2, __vbaVar2Vec, _adj_fdiv_m32i, _adj_fdivr_m32i, __vbaStrCopy, __vbaFreeStrList, _adj_fdivr_m32, _adj_fdiv_r, __vbaVarTstNe, __vbaI4Var, __vbaVarAdd, __vbaStrToAnsi, __vbaVarDup, __vbaFpI4, __vbaVarCopy, _CIatan, __vbaStrMove, __vbaCastObj, _allmul, __vbaLateIdSt, _CItan, __vbaVarForNext, _CIexp, __vbaFreeObj, __vbaFreeStr

Version Infos

Description	Data
Translation	0x0404 0x04b0
InternalName	Silure2
FileVersion	1.00
CompanyName	Asso Filler
ProductName	Asso Filler
ProductVersion	1.00
FileDescription	Asso Filler
OriginalFilename	Silure2.exe

Possible Origin

Language of compilation system	Country where language is spoken	Map
Chinese	Taiwan	

Network Behavior

No network behavior found

Code Manipulations

Statistics

System Behavior

Analysis Process: RFQ 35465756.exe PID: 5636 Parent PID: 5708

General

Start time:	13:20:59
Start date:	12/05/2021
Path:	C:\Users\user\Desktop\RFQ 35465756.exe
Wow64 process (32bit):	true
Commandline:	'C:\Users\user\Desktop\RFQ 35465756.exe'
Imagebase:	0x400000
File size:	81920 bytes
MD5 hash:	A00E24B88A7FFA3E82D9FCA15E0C46F1
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	Visual Basic
Yara matches:	• Rule: JoeSecurity_GuLoader_2, Description: Yara detected GuLoader, Source: 00000000.00000002.761118187.00000000022A0000.00000040.00000001.sdmp, Author: Joe Security • Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: 00000000.00000000.235938120.0000000000401000.00000020.00020000.sdmp, Author: Joe Security • Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: 00000000.00000002.759094776.0000000000401000.00000020.00020000.sdmp, Author: Joe Security
Reputation:	low

File Activities

File Path	Access	Attributes	Options	Completion	Count	Source Address	Symbol

File Path	Offset	Length	Completion	Count	Source Address	Symbol

Disassembly

Code Analysis