ID: 378054
Sample Name: order.exe
Cookbook: default.jbs
Time: 12:48:22
Date: 30/03/2021
Version: 31.0.0 Emerald

Table of Contents

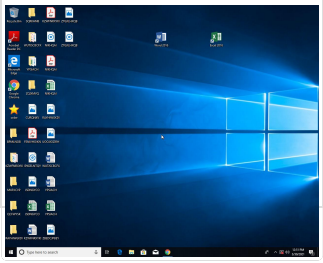
Analysis Report order.exe

Overview

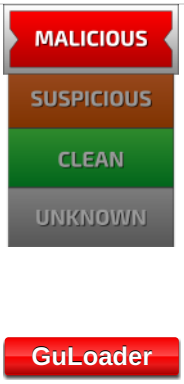
General Information

Sample Name:	order.exe
Analysis ID:	378054
MD5:	d3a6bd4762c0c4..
SHA1:	2ec4b075252892..
SHA256:	521fe877cf3543f…
Tags:	GuLoader
Infos:	

Most interesting Screenshot:



Detection

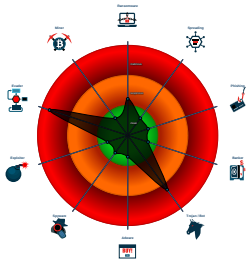


Score:	92
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

- Multi AV Scanner detection for subm…
- Yara detected GuLoader
- Contains functionality to detect hard…
- Detected RDTSC dummy instruction…
- Found potential dummy code loops (…
- Hides threads from debuggers
- Initial sample is a PE file and has a …
- Tries to detect Any.run
- Tries to detect sandboxes and other…
- Tries to detect virtualization through…
- Writes to foreign memory regions
- Abnormal high CPU Usage

Classification



Startup

- **System is w10x64**
- order.exe (PID: 6496 cmdline: 'C:\Users\user\Desktop\order.exe' MD5: D3A6BD4762C0C4A6F0C0FDF2D1F47915)
  - RegAsm.exe (PID: 6512 cmdline: 'C:\Users\user\Desktop\order.exe' MD5: 6FD7592411112729BF6B1F2F6C34899F)
    - conhost.exe (PID: 6528 cmdline: C:\Windows\system32\conhost.exe 0xffffffff -ForceV1 MD5: EA777DEEA782E8B4D7C7C33BBF8A4496)
- **cleanup**

Malware Configuration

No configs have been found

Yara Overview

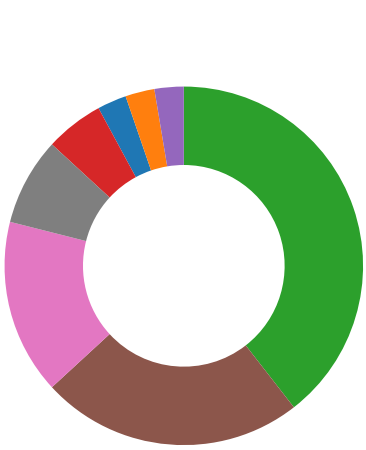
Memory Dumps

Source	Rule	Description	Author	Strings
Process Memory Space: RegAsm.exe PID: 6512	JoeSecurity_GuLoader	Yara detected GuLoader	Joe Security	

Sigma Overview

No Sigma rule has matched

Signature Overview



Click to jump to signature section

AV Detection:

Multi AV Scanner detection for submitted file

System Summary:

Initial sample is a PE file and has a suspicious name

Data Obfuscation:

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 Any.run

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

Tries to detect virtualization through RDTSC time measurements

Anti Debugging:

Found potential dummy code loops (likely to delay analysis)

Hides threads from debuggers

HIPS / PFW / Operating System Protection Evasion:

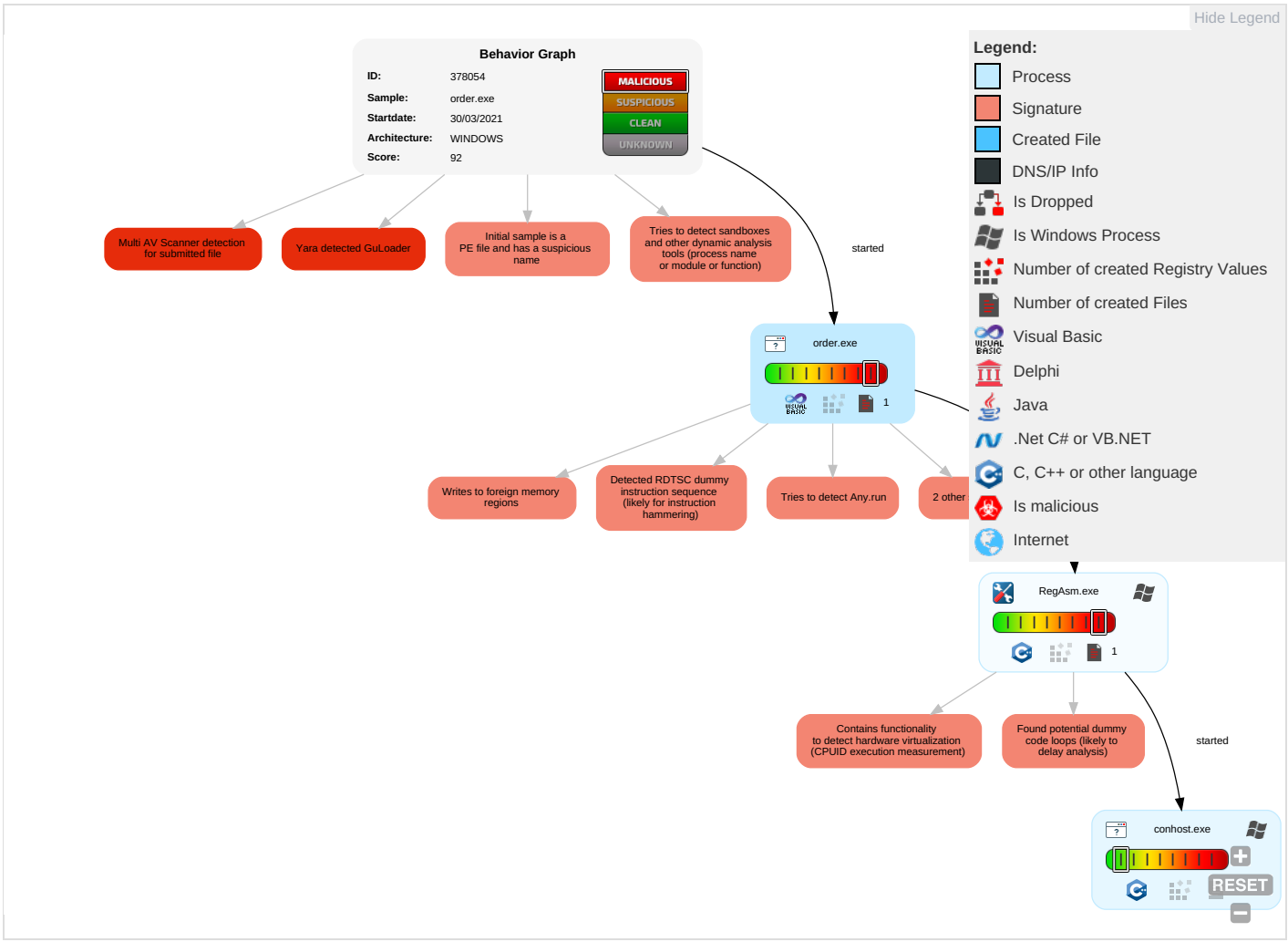
Writes to foreign memory regions

Mitre Att&ck Matrix

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects
Valid Accounts	Windows Management Instrumentation	DLL Side-Loading 1	Process Injection 1 1 2	Virtualization/Sandbox Evasion 3 1 1	OS Credential Dumping	Security Software Discovery 7 2 1	Remote Services	Archive Collected Data 1	Exfiltration Over Other Network Medium	Encrypted Channel 1	Eavesdrop o Insecure Network Communicat

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects
Default Accounts	Scheduled Task/Job	Boot or Logon Initialization Scripts	DLL Side-Loading 1	Process Injection 1 1 2	LSASS Memory	Virtualization/Sandbox Evasion 3 1 1	Remote Desktop Protocol	Data from Removable Media	Exfiltration Over Bluetooth	Junk Data	Exploit SS7 t Redirect Pho Calls/SMS
Domain Accounts	At (Linux)	Logon Script (Windows)	Logon Script (Windows)	DLL Side-Loading 1	Security Account Manager	Process Discovery 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Steganography	Exploit SS7 t Track Device Location
Local Accounts	At (Windows)	Logon Script (Mac)	Logon Script (Mac)	Obfuscated Files or Information 1	NTDS	System Information Discovery 3 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
order.exe	58%	Virustotal		Browse
order.exe	35%	Metadefender		Browse
order.exe	40%	ReversingLabs	Win32.Backdoor.NetWiredRc	

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:	31.0.0 Emerald
Analysis ID:	378054
Start date:	30.03.2021
Start time:	12:48:22
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 4m 28s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	order.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:	15
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@4/0@0/0
EGA Information:	Failed
HDC Information:	Failed
HCA Information:	Failed
Cookbook Comments:	• Adjust boot time • Enable AMSI • Found application associated with file extension: .exe
Warnings:	Show All • Exclude process from analysis (whitelisted): MpCmdRun.exe, audiodg.exe, BackgroundTransferHost.exe, WMIADAP.exe, backgroundTaskHost.exe, conhost.exe, svchost.exe • Report size getting too big, too many NtAllocateVirtualMemory calls found.

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):	4.6427707411140435
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:	order.exe
File size:	126976
MD5:	d3a6bd4762c0c4a6f0c0fdf2d1f47915
SHA1:	2ec4b075252892291620c389c1b5803d7d89e8d6
SHA256:	521fe877cf3543f9f967c17fa046ca186cd931624d6c5c2f61c0363b29e750e7
SHA512:	ebd715d245431022ef636a6e05ab230fa89c042afb5cec3c72442f8cb7d91343e225196e38adfeeecd0d734212e5d1d1c57ef38720f5b62ad46ea9aa12f82d18
SSDEEP:	768:bX71wnkVPSNDFzZJc6NYHQ9kLfynrm3E23FVp/XPa3w80KwHIKv67CE023:rikkNDdTxu69m3E2jp/XPqwIKvfE02
File Content Preview:	MZ.....@.....!..L.!This program cannot be run in DOS mode....$.....O.....D.....=.....Rich.....PE..L...<.UP.....`.....L.....@.....

File Icon

Icon Hash:	d230f2ec7064c410

Static PE Info

General

Entrypoint:	0x40134c
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:	0x5055DD3C [Sun Sep 16 14:07:56 2012 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:	3a1dabb0c190b6a5ea3886c39f544c6c

Entrypoint Preview

Instruction
push 0041434Ch
call 00007FAC50811AD3h
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 ah, ch
sti
mov byte ptr [DCE13B38h], al
dec ebp
pushfd
xchg eax, edi
jmp 00007FAC50811B45h
jmp 00007FAC5112CF6Ch
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [ecx], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [edi+75h], cl
je 00007FAC50811B55h
arpl word ptr [edi+72h], bp
outsb
imul ebp, dword ptr [esi+67h], 00000000h
add byte ptr [eax], al
add byte ptr [eax], al
add bh, bh
int3
xor dword ptr [eax], eax

Instruction
adc eax, 67F56310h
outsb
pop ebp
retf
inc ecx
mov ch, 15h
out 58h, al
cmp cl, byte ptr [edx]
retn ED8Dh
or ebp, dword ptr [ecx+739C372Eh]
dec ebp
adc byte ptr [edi], 00000070h
mov ah, CDh
scasb
adc bl, byte ptr [33AD4F3Ah]
cdq
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
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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
add byte ptr [eax], al
add byte ptr [eax], al
xor eax, ED00012Fh
sub eax, dword ptr [ecx]
add byte ptr [eax], al
or dword ptr [eax], eax
dec eax
je 00007FAC50811B48h
outsb
jnc 00007FAC50811B1Bh
add byte ptr [41000C01h], cl
inc esi
dec eax
inc ecx
inc ecx

Data Directories

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_EXPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_IMPORT	0x19114	0x28	.text
IMAGE_DIRECTORY_ENTRY_RESOURCE	0x1c000	0x3ef4	.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	
IMAGE_DIRECTORY_ENTRY_LOAD_CONFIG	0x0	0x0	

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_BOUND_IMPORT	0x228	0x20	
IMAGE_DIRECTORY_ENTRY_IAT	0x1000	0xe0	.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	0x18530	0x19000	False	0.298359375	data	4.99321635473	IMAGE_SCN_MEM_EXECUTE, IMAGE_SCN_CNT_CODE, IMAGE_SCN_MEM_READ
.data	0x1a000	0x194c	0x1000	False	0.00634765625	data	0.0	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_WRITE, IMAGE_SCN_MEM_READ
.rsrc	0x1c000	0x3ef4	0x4000	False	0.286865234375	data	3.29642223118	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ

Resources

Name	RVA	Size	Type	Language	Country
RT_ICON	0x1d84c	0x26a8	data		
RT_ICON	0x1cba4	0xca8	data		
RT_ICON	0x1c45c	0x748	data		
RT_GROUP_ICON	0x1c42c	0x30	data		
RT_VERSION	0x1c150	0x2dc	data	English	United States

Imports

DLL	Import
MSVBVM60.DLL	_CIcos, _adj_fptan, __vbaVarMove, __vbaFreeVar, __vbaStrVarMove, __vbaFreeVarList, _adj_fdiv_m64, __vbaFreeObjList, _adj_fprem1, __vbaHresultCheckObj, _adj_fdiv_m32, __vbaVarForInit, __vbaObjSet, _adj_fdiv_m16i, _adj_fdivr_m16i, _CIsin, __vbaChkstk, EVENT_SINK_AddRef, DllFunctionCall, _adj_fpatan, __vbaLateIdCallLd, EVENT_SINK_Release, _CIsqrt, EVENT_SINK_QueryInterface, __vbaExceptHandler, _adj_fprem, _adj_fdivr_m64, __vbaI2Str, __vbaFPException, _CIlog, __vbaNew2, _adj_fdiv_m32i, _adj_fdivr_m32i, __vbaStrCopy, __vbaFreeStrList, _adj_fdivr_m32, _adj_fdiv_r, __vbaVarTstNe, __vbaI4Var, _CIatan, __vbaStrMove, _allmul, __vbaLateIdSt, _CItan, __vbaVarForNext, _CIexp, __vbaFreeObj, __vbaFreeStr

Version Infos

Description	Data
Translation	0x0409 0x04b0
InternalName	REVISIONSARBEJDET
FileVersion	9.04.0012
CompanyName	Hurricane MUX, Inc.
Comments	Hurricane MUX
ProductName	Hurricane MUX
ProductVersion	9.04.0012
FileDescription	Hurricane MUX
OriginalFilename	REVISIONSARBEJDET.exe

Possible Origin

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

Network Behavior

No network behavior found

Code Manipulations

Statistics

Behavior

Click to jump to process

System Behavior

Analysis Process: order.exe PID: 6496 Parent PID: 5864

General

Start time:	12:49:10
Start date:	30/03/2021
Path:	C:\Users\user\Desktop\order.exe
Wow64 process (32bit):	true
Commandline:	'C:\Users\user\Desktop\order.exe'
Imagebase:	0x400000
File size:	126976 bytes
MD5 hash:	D3A6BD4762C0C4A6F0C0FDF2D1F47915
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	Visual Basic
Reputation:	low

File Activities

File Path	Access	Attributes	Options	Completion	Count	Source Address	Symbol

Analysis Process: RegAsm.exe PID: 6512 Parent PID: 6496

General

Start time:	12:50:26
Start date:	30/03/2021
Path:	C:\Windows\Microsoft.NET\Framework\v4.0.30319\RegAsm.exe
Wow64 process (32bit):	true

Commandline:	'C:\Users\user\Desktop\order.exe'
Imagebase:	0x6c0000
File size:	64616 bytes
MD5 hash:	6FD7592411112729BF6B1F2F6C34899F
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

File Path	Access	Attributes	Options	Completion	Count	Source Address	Symbol

Analysis Process: conhost.exe PID: 6528 Parent PID: 6512

General

Start time:	12:50:27
Start date:	30/03/2021
Path:	C:\Windows\System32\conhost.exe
Wow64 process (32bit):	false
Commandline:	C:\Windows\system32\conhost.exe 0xffffffff -ForceV1
Imagebase:	0x7ff61de10000
File size:	625664 bytes
MD5 hash:	EA777DEEA782E8B4D7C7C33BBF8A4496
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

Disassembly

Code Analysis