ID: 384219
Sample Name: gedanken.exe
Cookbook: default.jbs
Time: 18:50:52
Date: 08/04/2021
Version: 31.0.0 Emerald

Table of Contents

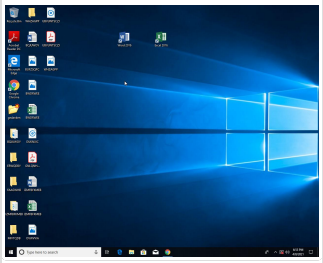
Analysis Report gedanken.exe

Overview

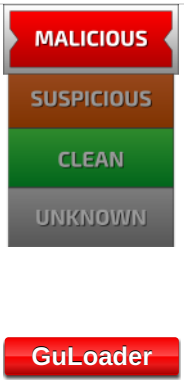
General Information

Sample Name:	gedanken.exe
Analysis ID:	384219
MD5:	e2342da4c7a6ff1..
SHA1:	a5aec8579ab17e..
SHA256:	dc51b75c62afc72..
Tags:	exe GuLoader
Infos:	

Most interesting Screenshot:



Detection

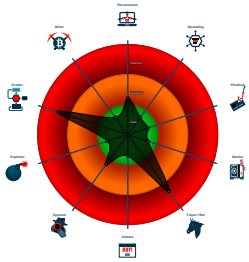


Score:	80
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

- Multi AV Scanner detection for subm…
- Yara detected GuLoader
- Contains functionality to detect hard…
- Found potential dummy code loops (…
- Machine Learning detection for samp…
- Tries to detect sandboxes and other…
- Tries to detect virtualization through…
- Yara detected VB6 Downloader Gen…
- Abnormal high CPU Usage
- Contains functionality for execution …
- Contains functionality to query CPU …
- Contains functionality to read the PEB
- Detected potential crypto function
- PE file contains an invalid checksum

Classification



Startup

- **System is w10x64**
- gedanken.exe (PID: 6880 cmdline: 'C:\Users\user\Desktop\gedanken.exe' MD5: E2342DA4C7A6FF102679CD487954DC5F)
- **cleanup**

Malware Configuration

No configs have been found

Yara Overview

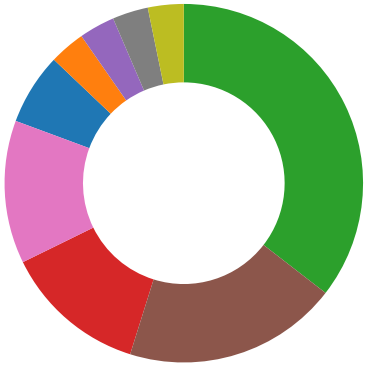
Memory Dumps

Source	Rule	Description	Author	Strings
00000000.00000002.1168805441.00000000046000.00000040.00000001.sdmp	JoeSecurity_GuLoader	Yara detected GuLoader	Joe Security	
Process Memory Space: gedanken.exe PID: 6880	JoeSecurity_VB6DownloaderGeneric	Yara detected VB6 Downloader Generic	Joe Security	
Process Memory Space: gedanken.exe PID: 6880	JoeSecurity_GuLoader	Yara detected GuLoader	Joe Security	

Sigma Overview

No Sigma rule has matched

Signature Overview



- AV Detection
- Compliance
- 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

Click to jump to signature section

AV Detection:

Multi AV Scanner detection for submitted file

Machine Learning detection for sample

Data Obfuscation:

Yara detected GuLoader

Yara detected VB6 Downloader Generic

Malware Analysis System Evasion:

Contains functionality to detect hardware virtualization (CPUID execution measurement)

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

Tries to detect virtualization through RDTSC time measurements

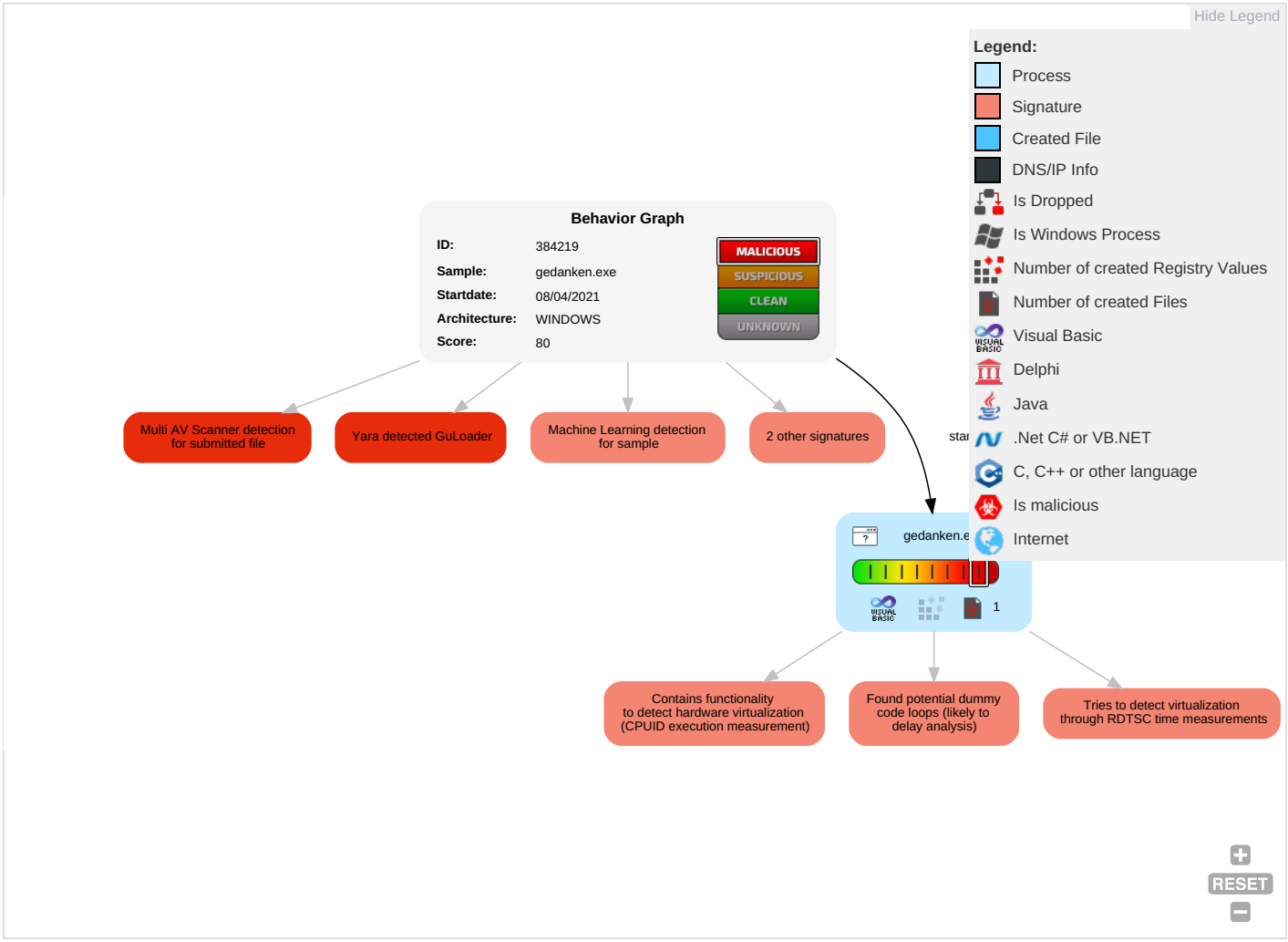
Anti Debugging:

Found potential dummy code loops (likely to delay analysis)

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 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	Junk Data	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 2 1 1	Distributed Component Object Model	Input Capture	Scheduled Transfer	Protocol Impersonation	SIM Card Swap	

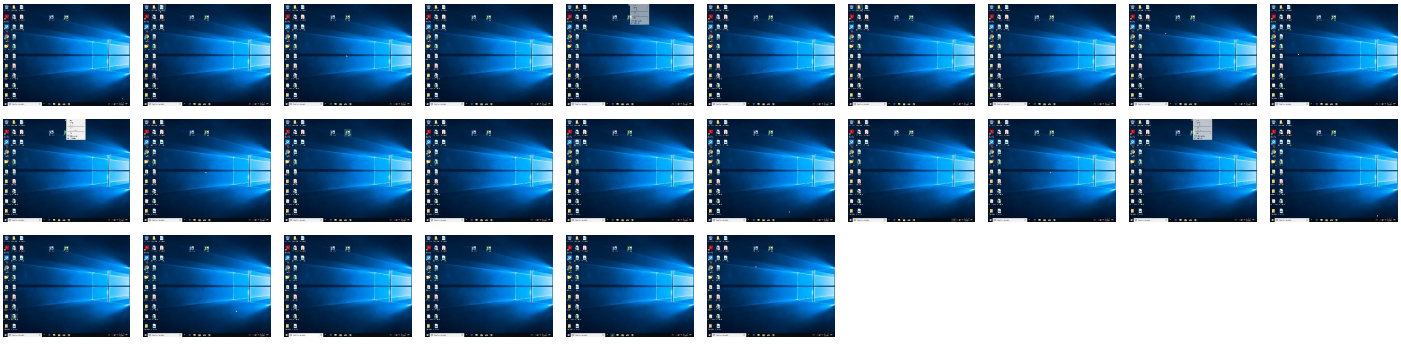
Behavior Graph



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
gedanken.exe	53%	Virustotal		Browse
gedanken.exe	50%	ReversingLabs	Win32.Trojan.GuLoader	
gedanken.exe	100%	Joe Sandbox ML		

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:	384219
Start date:	08.04.2021
Start time:	18:50:52
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 6m 45s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	gedanken.exe
Cookbook file name:	default.jbs
Analysis system description:	Windows 10 64 bit v1803 with Office Professional Plus 2016, Chrome 85, IE 11, Adobe Reader DC 19, Java 8 Update 211
Number of analysed new started processes analysed:	17
Number of new started drivers analysed:	0
Number of existing processes analysed:	0
Number of existing drivers analysed:	0
Number of injected processes analysed:	0
Technologies:	• HCA enabled • EGA enabled • HDC enabled • AMSI enabled
Analysis Mode:	default
Analysis stop reason:	Timeout
Detection:	MAL
Classification:	mal80.troj.evad.winEXE@1/0@0/0
EGA Information:	Failed
HDC Information:	• Successful, ratio: 32.8% (good quality ratio 16.5%) • Quality average: 24.8% • Quality standard deviation: 27.8%
HCA Information:	Failed
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
Warnings:	Show All • Exclude process from analysis (whitelisted): BackgroundTransferHost.exe, backgroundTaskHost.exe, svchost.exe, wuapihost.exe

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):	5.658586008613306
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:	gedanken.exe
File size:	110592
MD5:	e2342da4c7a6ff102679cd487954dc5f
SHA1:	a5aec8579ab17e7378c5cff51eb321d55f2e3532
SHA256:	dc51b75c62afc72ad319d361366d01901a237343fe8dafc568fc0f38d9bc7f3a
SHA512:	23cf2857f305792f8318760ff36f2f3dc940598850afa4410136c0c3abec58df2c7eaceb463ab64d45b101bc4f4c9c1aa8d737e46876e8120ef244621ec77803
SSDEEP:	1536:4yPqW0672Qw+Q7jlNmY/2vL2M/FPVm9v6hRK1ZPVm9vDd2Mf2v:Viw73Yfxv8Vm2A1FVmy
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...i.rY.....0.....@....@.....

File Icon

Icon Hash:	c0c6f2e0e4fefe3f

Static PE Info

General	
Entrypoint:	0x4013e8
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:	0x5972E969 [Sat Jul 22 05:58:01 2017 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:	d1ed0dda3501483d16a7ad09b76f3b08

Entrypoint Preview

Instruction
push 00411514h
call 00007FDEBC9AD553h
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 [edx], al
pushf
sar dword ptr [esi+1Ah], cl
aad 44h
xchg byte ptr [eax-7Dh], cl
dec cx
dec esi
outsd
test byte ptr [eax], al
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], 00000000h
add byte ptr [eax], al
jne 00007FDEBC9AD5CEh
popad
insb
jns 00007FDEBC9AD5D2h
je 00007FDEBC9AD5D7h
jnc 00007FDEBC9AD5D6h
jc 00007FDEBC9AD5C7h
jc 00007FDEBC9AD5D5h
add byte ptr [eax], al
add byte ptr [eax], al
add bh, bh
int3

Instruction
xor dword ptr [eax], eax
or edx, dword ptr [eax+61079236h]
lea edi, dword ptr [esi-217365B3h]
je 00007FDEBC9AD5E0h
insd
push ds
in eax, 84h
fisttp dword ptr [esi]
sbb dword ptr [esi-01h], esp
cli
inc esp
test al, 32h
sti
shl dword ptr [eax], cl
out dx, eax
push ebp
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
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
add byte ptr [eax], al
add byte ptr [eax], al

Data Directories

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_EXPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_IMPORT	0x13934	0x28	.text
IMAGE_DIRECTORY_ENTRY_RESOURCE	0x16000	0x5c3a	.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	
IMAGE_DIRECTORY_ENTRY_BOUND_IMPORT	0x228	0x20	
IMAGE_DIRECTORY_ENTRY_IAT	0x1000	0x108	.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	0x12ddc	0x13000	False	0.42867238898	data	6.08030531578	IMAGE_SCN_MEM_EXECUTE, IMAGE_SCN_CNT_CODE, IMAGE_SCN_MEM_READ

Name	Virtual Address	Virtual Size	Raw Size	Xored PE	ZLIB Complexity	File Type	Entropy	Characteristics
.data	0x14000	0x117c	0x1000	False	0.00634765625	data	0.0	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_WRITE, IMAGE_SCN_MEM_READ
.rsrc	0x16000	0x5c3a	0x6000	False	0.359700520833	data	5.27049873079	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ

Resources

Name	RVA	Size	Type	Language	Country
RT_ICON	0x1ad92	0xea8	data		
RT_ICON	0x1a4ea	0x8a8	data		
RT_ICON	0x19f82	0x568	GLS_BINARY_LSB_FIRST		
RT_ICON	0x179da	0x25a8	dBase III DBT, version number 0, next free block index 40		
RT_ICON	0x16932	0x10a8	data		
RT_ICON	0x164ca	0x468	GLS_BINARY_LSB_FIRST		
RT_GROUP_ICON	0x16470	0x5a	data		
RT_VERSION	0x161e0	0x290	MS Windows COFF PA-RISC object file	Guarani	Paraguay

Imports

DLL	Import
MSVBVM60.DLL	_CIcos, _adj_fptan, __vbaVarMove, __vbaFreeVar, __vbaLineInputStr, __vbaStrVarMove, __vbaFreeVarList, _adj_fdiv_m64, _adj_fprem1, __vbaHresultCheckObj, __vbaLenBstrB, _adj_fdiv_m32, __vbaAryDestruct, __vbaOnError, _adj_fdiv_m16i, _adj_fdivr_m16i, __vbaFpR8, __vbaVarTstLt, _CIsin, __vbaChkstk, __vbaFileClose, EVENT_SINK_AddRef, __vbaGenerateBoundsError, __vbaStrCmp, __vbaAryConstruct2, __vbaObjVar, _adj_fpatan, EVENT_SINK_Release, _CIsqrt, EVENT_SINK_QueryInterface, __vbaExceptHandler, _adj_fprem, _adj_fdivr_m64, __vbaFPException, _CIlog, __vbaFileOpen, __vbaNew2, __vbaR8Str, _adj_fdiv_m32i, _adj_fdivr_m32i, __vbaStrCopy, _adj_fdivr_m32, _adj_fdiv_r, __vbaLateMemCall, __vbaVarAdd, __vbaVarDup, __vbaFpI4, _CIatan, __vbaStrMove, _allmul, _CItan, _CIexp, __vbaFreeStr, __vbaFreeObj

Version Infos

Description	Data
Translation	0x0474 0x04b0
InternalName	gedanken
FileVersion	1.00
CompanyName	Pana-sonic
Comments	Pana-sonic
ProductName	Pana-sonic
ProductVersion	1.00
FileDescription	Pana-sonic
OriginalFilename	gedanken.exe

Possible Origin

Language of compilation system	Country where language is spoken	Map
Guarani	Paraguay	

Network Behavior

No network behavior found

Code Manipulations

Statistics

System Behavior

Analysis Process: gedanken.exe PID: 6880 Parent PID: 5912

General

Start time:	18:51:37
Start date:	08/04/2021
Path:	C:\Users\user\Desktop\gedanken.exe
Wow64 process (32bit):	true
Commandline:	'C:\Users\user\Desktop\gedanken.exe'
Imagebase:	0x400000
File size:	110592 bytes
MD5 hash:	E2342DA4C7A6FF102679CD487954DC5F
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	Visual Basic
Yara matches:	• Rule: JoeSecurity_GuLoader, Description: Yara detected GuLoader, Source: 00000000.00000002.1168805441.0000000000460000.00000040.00000001.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