

JOeSandbox Cloud BASIC



ID: 432590

Sample Name:

BL_SGN11203184.xlsx

Cookbook:

defaultwindowsofficecookbook.jbs

Time: 15:16:10

Date: 10/06/2021

Version: 32.0.0 Black Diamond

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Analysis Report BL_SGN11203184.xlsx

Overview

General Information

Sample Name:	BL_SGN11203184.xlsx
Analysis ID:	432590
MD5:	06eb9a2b3d7113..
SHA1:	2a6929b76b8b69..
SHA256:	1554d0f1b36381c.
Tags:	VelvetSweatshop xlsx
Infos:	
Most interesting Screenshot:	

Detection

MALICIOUS

SUSPICIOUS

CLEAN

UNKNOWN

GuLoader

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

Signatures

Antivirus detection for URL or domain

Found malware configuration

Multi AV Scanner detection for doma...

Multi AV Scanner detection for dropp...

Multi AV Scanner detection for subm...

Sigma detected: Droppers Exploiting...

Sigma detected: EQNEDT32.EXE c...

Sigma detected: File Dropped By EQ...

Snort IDS alert for network traffic (e...

Yara detected GuLoader

Yara detected GuLoader

C2 URLs / IPs found in malware con...

Classification

Process Tree

- System is w7x64
- EXCEL.EXE (PID: 1920 cmdline: 'C:\Program Files\Microsoft Office\Office14\EXCEL.EXE' /automation -Embedding MD5: 5FB0A0F93382ECD19F5F499A5CAA59F0)
- EQNEDT32.EXE (PID: 2396 cmdline: 'C:\Program Files\Common Files\Microsoft Shared\EQ\EQNEDT32.EXE' -Embedding MD5: A87236E214F6D42A65F5DEDAC816AEC8)
 - vbc.exe (PID: 2824 cmdline: 'C:\Users\Public\vbc.exe' MD5: 99BBF83ABE9D6E4ECC91493E32230833)
- cleanup

Malware Configuration

Threatname: GuLoader

```
{
  "Payload URL": "https://www.pos.nblwarehouse.my.id/bin_GgrWeMMq137.bin, http://benvenuti.rs/wp-co"
}
```

Yara Overview

PCAP (Network Traffic)

Source	Rule	Description	Author	Strings
dump.pcap	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Dropped Files

Source	Rule	Description	Author	Strings
C:\Users\Public\vbc.exe	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	
C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\svchost[1].exe	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Memory Dumps

Source	Rule	Description	Author	Strings
00000004.00000000.2151758048.000000000004 01000.00000020.00020000.sdmp	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	
00000004.00000002.2364907663.000000000004 40000.00000040.00000001.sdmp	JoeSecurity_GuLoader_2	Yara detected GuLoader	Joe Security	
00000004.00000002.2364880980.000000000004 01000.00000020.00020000.sdmp	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Unpacked PEs

Source	Rule	Description	Author	Strings
4.2.vbc.exe.400000.1.unpack	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	
4.0.vbc.exe.400000.0.unpack	JoeSecurity_GuLoader_1	Yara detected GuLoader	Joe Security	

Sigma Overview

Exploits:



Sigma detected: EQNEDT32.EXE connecting to internet

Sigma detected: File Dropped By EQNEDT32EXE

System Summary:



Sigma detected: Droppers Exploiting CVE-2017-11882

Sigma detected: Execution from Suspicious Folder

Signature Overview

 Click to jump to signature section

AV Detection:



Antivirus detection for URL or domain

Found malware configuration

Multi AV Scanner detection for domain / URL

Multi AV Scanner detection for dropped file

Multi AV Scanner detection for submitted file

Exploits:



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

Networking:



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

C2 URLs / IPs found in malware configuration

System Summary:



Office equation editor drops PE file

Data Obfuscation:



Yara detected GuLoader

Yara detected GuLoader

Boot Survival:



Drops PE files to the user root directory

Malware Analysis System Evasion:



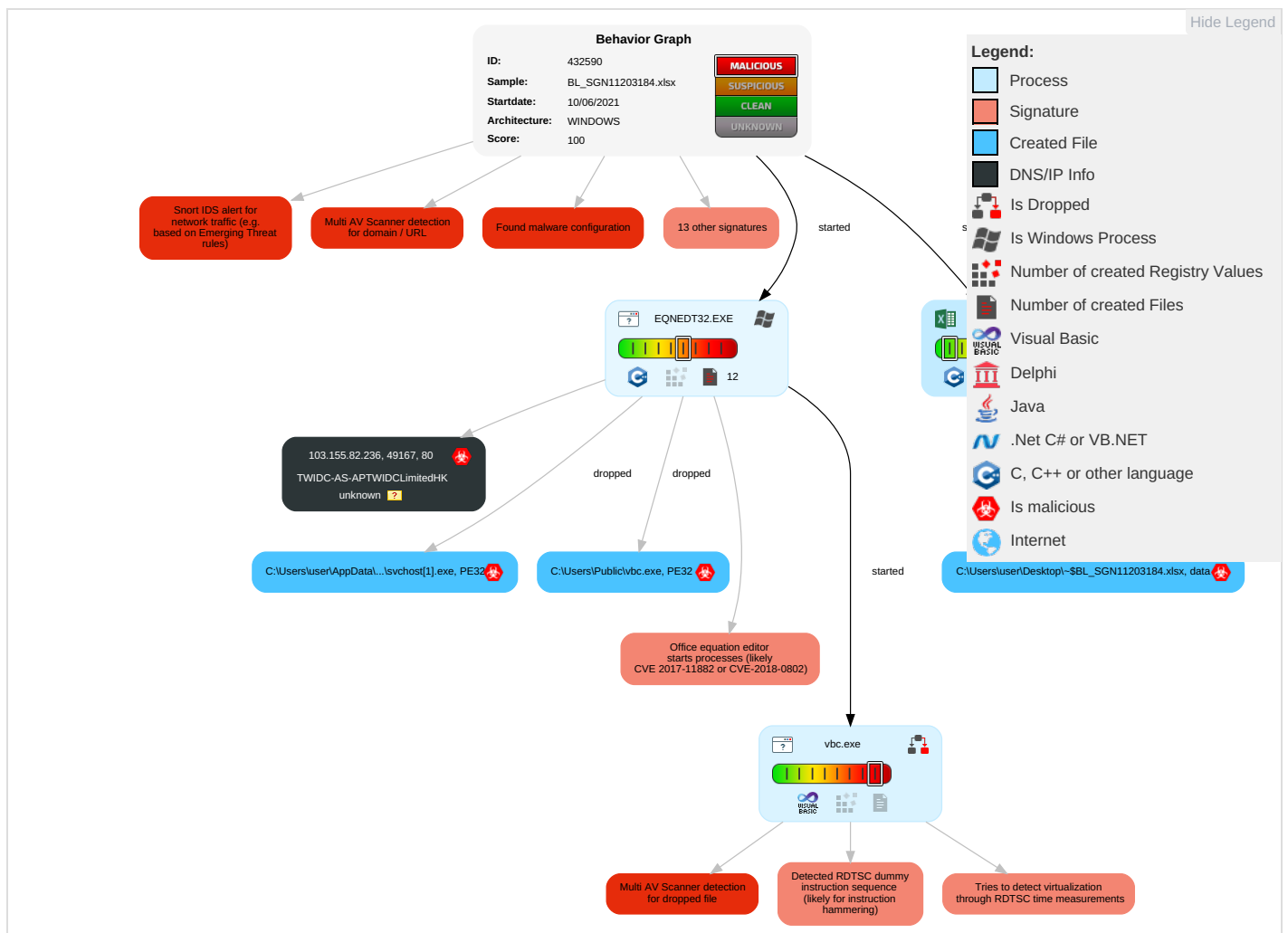
Detected RDTSC dummy instruction sequence (likely for instruction hammering)

Tries to detect virtualization through RDTSC time measurements

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	Exploitation for Client Execution 1 2	Path Interception	Process Injection 1 2	Masquerading 1 1 1	OS Credential Dumping	Security Software Discovery 3 1	Remote Services	Archive Collected Data 1	Exfiltration Over Other Network Medium	Encrypted Channel 1	Eavesdropping, Insecure Network Communication
Default Accounts	Scheduled Task/Job	Boot or Logon Initialization Scripts	Extra Window Memory Injection 1	Virtualization/Sandbox Evasion 1	LSASS Memory	Virtualization/Sandbox Evasion 1	Remote Desktop Protocol	Data from Removable Media	Exfiltration Over Bluetooth	Ingress Tool Transfer 1 2	Exploit Software, Redirect Calls/SMS
Domain Accounts	At (Linux)	Logon Script (Windows)	Logon Script (Windows)	Process Injection 1 2	Security Account Manager	Process Discovery 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Non-Application Layer Protocol 1	Exploit Software, Track Device Location
Local Accounts	At (Windows)	Logon Script (Mac)	Logon Script (Mac)	Obfuscated Files or Information 1 1	NTDS	Remote System Discovery 1	Distributed Component Object Model	Input Capture	Scheduled Transfer	Application Layer Protocol 1 2 1	SIM Card Swap
Cloud Accounts	Cron	Network Logon Script	Network Logon Script	Extra Window Memory Injection 1	LSA Secrets	File and Directory Discovery 1	SSH	Keylogging	Data Transfer Size Limits	Fallback Channels	Manipulation, Device Communication
Replication Through Removable Media	Launchd	Rc.common	Rc.common	Steganography	Cached Domain Credentials	System Information Discovery 2 2	VNC	GUI Input Capture	Exfiltration Over C2 Channel	Multiband Communication	Jamming, Denial of Service

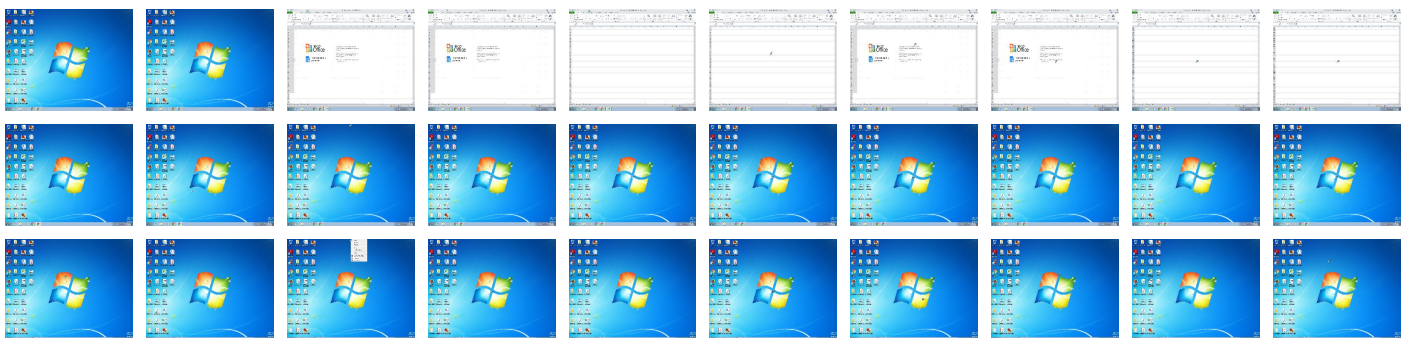
Behavior Graph

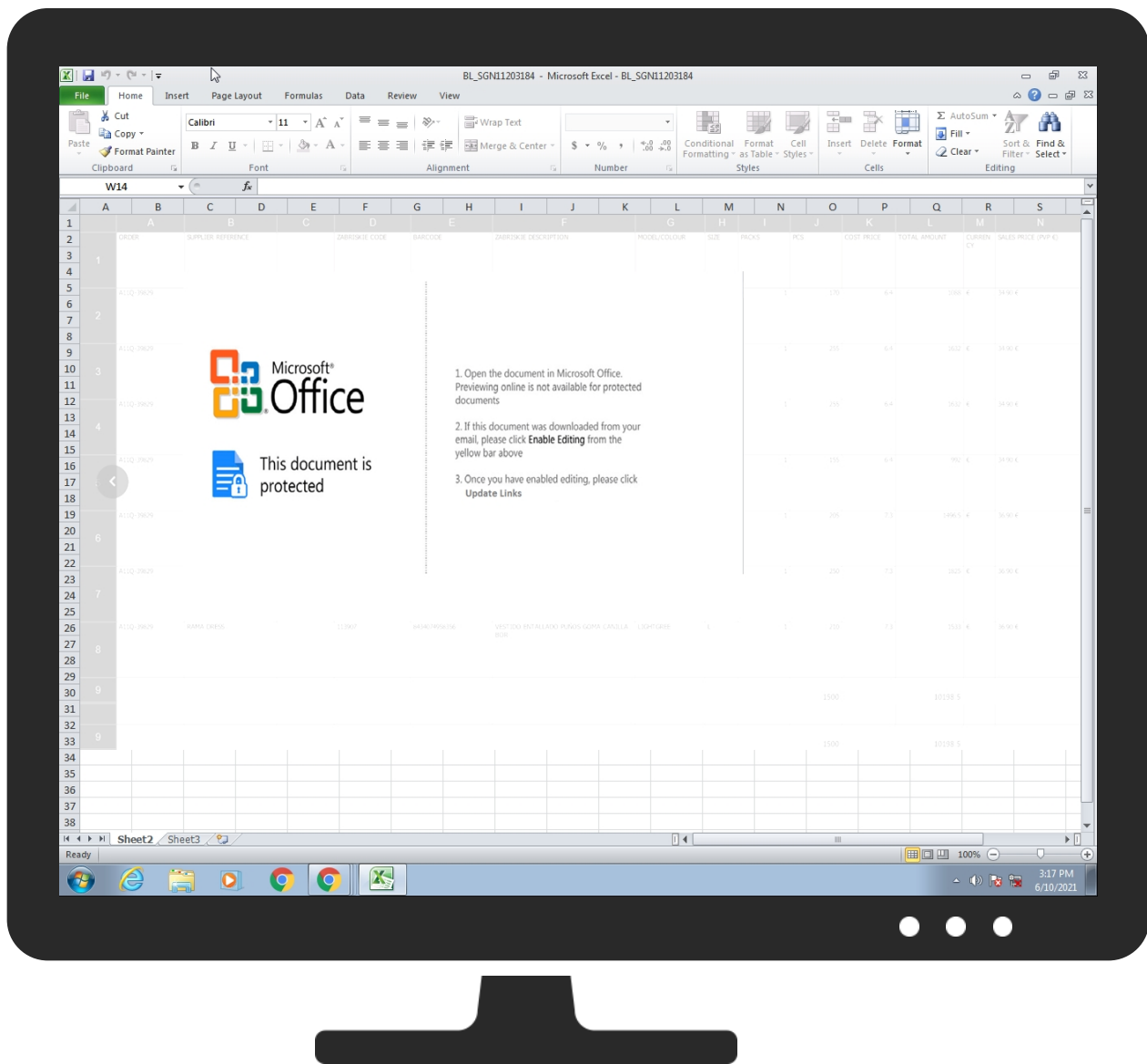


Screenshots

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
BL_SGN11203184.xlsx	22%	ReversingLabs	Document-OLE.Exploit.CVE-2018-0802	

Dropped Files

Source	Detection	Scanner	Label	Link
C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\svchost[1].exe	31%	Metadefender		Browse
C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\svchost[1].exe	59%	ReversingLabs	Win32.Trojan.Jaik	
C:\Users\Public\vlc.exe	31%	Metadefender		Browse
C:\Users\Public\vlc.exe	59%	ReversingLabs	Win32.Trojan.Jaik	

Unpacked PE Files

No Antivirus matches

Domains

No Antivirus matches

URLs

Source	Detection	Scanner	Label	Link
http://103.155.82.236/fksdoc/svchost.exe	12%	Virustotal		Browse
http://103.155.82.236/fksdoc/svchost.exe	100%	Avira URL Cloud	malware	
http://https://www.pos.nblwarehouse.my.id/bin_GgrWeMMq137.bin, benvenuti.rs/wp-co	0%	Avira URL Cloud	safe	

Domains and IPs

Contacted Domains

No contacted domains info

Contacted URLs

Name	Malicious	Antivirus Detection	Reputation
http://103.155.82.236/fksdoc/svchost.exe	true	12%, Virustotal, Browse - Avira URL Cloud: malware	unknown
http://https://www.pos.nblwarehouse.my.id/bin_GgrWeMMq137.bin, benvenuti.rs/wp-co	true	Avira URL Cloud: safe	unknown

URLs from Memory and Binaries

Contacted IPs

Public

IP	Domain	Country	Flag	ASN	ASN Name	Malicious
103.155.82.236	unknown	unknown		134687	TWIDC-AS-APTWIDCLimitedHK	true

General Information

Joe Sandbox Version:	32.0.0 Black Diamond
Analysis ID:	432590
Start date:	10.06.2021
Start time:	15:16:10
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 6m 21s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	BL_SGN11203184.xlsx
Cookbook file name:	defaultwindowsofficecookbook.jbs
Analysis system description:	Windows 7 x64 SP1 with Office 2010 SP2 (IE 11, FF52, Chrome 57, Adobe Reader DC 15, Flash 25.0.0.127, Java 8 Update 121, .NET 4.6.2)
Number of analysed new started processes analysed:	5
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:	mal100.troj.expl.evad.winXLSX@4/16@0/1
EGA Information:	Failed

HDC Information:	Failed
HCA Information:	Failed
Cookbook Comments:	- Adjust boot time - Enable AMSI - Found application associated with file extension: .xlsx - Found Word or Excel or PowerPoint or XPS Viewer - Attach to Office via COM - Scroll down - Close Viewer
Warnings:	Show All

Simulations

Behavior and APIs

Time	Type	Description
15:17:07	API Interceptor	70x Sleep call for process: EQNEDT32.EXE modified

Joe Sandbox View / Context

IPs

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
103.155.82.236	spices requirement.xlsx	Get hash	malicious	Browse	103.155.82.236/fksdoc/svchost.exe
	2773773737646_OOCL_INVOICE_937763.xlsx	Get hash	malicious	Browse	103.155.82.236/fwkd oc/svchost.exe
	DRAFT BL_CMA_CGM.xlsx	Get hash	malicious	Browse	103.155.82.236/fwkd oc/svchost.exe

Domains

No context

ASN

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
TWIDC-AS-APTWIDCLimitedHK	spices requirement.xlsx	Get hash	malicious	Browse	103.155.82.236
	Cancellation_1844611233_06082021.xlsm	Get hash	malicious	Browse	103.155.92.95
	Cancellation_1844611233_06082021.xlsm	Get hash	malicious	Browse	103.155.92.95
	Rebate_18082425_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	Rebate_18082425_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	DEBT_06032021_861309073.xlsm	Get hash	malicious	Browse	103.155.93.93
	DEBT_06032021_861309073.xlsm	Get hash	malicious	Browse	103.155.93.93
	2773773737646_OOCL_INVOICE_937763.xlsx	Get hash	malicious	Browse	103.155.82.236
	Rebate_854427061_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	Rebate_854427061_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	Document_06022021_568261087_Copy.xlsm	Get hash	malicious	Browse	103.155.92.221
	Document_06022021_568261087_Copy.xlsm	Get hash	malicious	Browse	103.155.92.221
	DRAFT BL_CMA_CGM.xlsx	Get hash	malicious	Browse	103.155.82.236
	Document_06022021_1658142991_Copy.xlsm	Get hash	malicious	Browse	103.155.92.221
	Document_06022021_1658142991_Copy.xlsm	Get hash	malicious	Browse	103.155.92.221
	PO (2).exe	Get hash	malicious	Browse	103.153.182.50
	PO.exe	Get hash	malicious	Browse	103.153.182.50
	Rebate_850149173_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	Rebate_850149173_05272021.xlsm	Get hash	malicious	Browse	103.155.93.185
	Outstanding_Debt_591538347_05242021.xlsm	Get hash	malicious	Browse	103.155.92.157

JA3 Fingerprints

No context

Dropped Files

No context

Created / dropped Files

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\svchost[1].exe



Process:	C:\Program Files\Common Files\Microsoft Shared\EQUATION\EQNEDT32.EXE
File Type:	PE32 executable (GUI) Intel 80386, for MS Windows
Category:	downloaded
Size (bytes):	147456
Entropy (8bit):	5.607689655560483
Encrypted:	false
SSDEEP:	1536:Fttu3FssKUMvr9DJ1FJS1bQNZ6bp/+Dtr5m3XSt4IYS0eXJWUTFboob:ztu3alxx3fSQmbs55r4l6eXJWUB0ob
MD5:	99BBF83ABE9D6E4ECC91493E32230833
SHA1:	B0BD6BA2DC10EB5552EDC7A3460C80EE0EB1B11E
SHA-256:	2B2A00650DC91D1A7CCFA4A62E3462762C62D8A092BDD875943F87074F1D56A5
SHA-512:	0F6B9F9A843F491B925AAB0AF5D4F08024A2D430C41022C23AFB46CE3ABDF7881E8D87AC6D93F5ADFC2F11AEE0F0BB0AC28FA2500EC118BC1ED496281D3AF1C6
Malicious:	true
Yara Hits:	Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\svchost[1].exe, Author: Joe Security
Antivirus:	- Antivirus: Metadefender, Detection: 31%, Browse - Antivirus: ReversingLabs, Detection: 59%
Reputation:	low
IE Cache URL:	http://103.155.82.236/fksdoc/svchost.exe
Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....#...B...B...B...B...B...d...B...Rich.B.....PE..L.....G.....0.....@.....P.....0.....\$...(.....@..P.....(.....text..... ...data...P.....@.....rsrc...P.....@.....0.....@...@...l.....MSVBVM60.DLL.....

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\1E4E0F48.png



Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 476 x 244, 8-bit/color RGB, non-interlaced
Category:	dropped
Size (bytes):	49744
Entropy (8bit):	7.99056926749243
Encrypted:	true
SSDEEP:	768:wnuJ6p14x3egT1LYye1wBiPaaBsZbkCev17dGOhrKjjsv+gZB/UcVaxZJ2LEz:Yfp1UeWNYF1UiPm+q1sxZB/ZS
MD5:	63A6CB15B2B8ECD64F1158F5C8FBDCC8
SHA1:	8783B949B93383C2A5AF7369C6EEB9D5DD7A56F6
SHA-256:	AEA49B54BA0E46F19E04BB883DA311518AF3711132E39D3AF143833920CDD232
SHA-512:	BB42A40E6EADF558C2AAE82F5FB60B8D3AC06E669F41B46FCBE65028F02B2E63491DB40E1C6F1B21A830E72EE52586B83A24A055A06C2CCC2D1207C2D5AD6E45
Malicious:	false
Reputation:	moderate, very likely benign file
Preview:	.PNG.....IHDR.....I.M....IDATx...T.J...G.;nuww7.s...U.K.....lh...qli...K...t'k.W.i.>.....B....E.0...f.a....e...++...P.. .^.L.S)r:.....sM...p..p-.y]...t7'D)...../..k. ...pzos.....6;...H....U..a..9..1...\$.....*.k <.\F...\$E.....?B(9.....H..!.....0AV..g.m...23..C..g(%...6..>O.r...L..t1.Q..bE.....)V.g.\G..p..p.X[.....*%hyt...@..J...~.p.... . >...~.`\E_...*iU.G...i.O..r6...iV.....@.....Jte...5Q.P.v;..B.C...m.....0.N.....q...b....Q...c.moT.e6OB...p.v".....9..G...B}...../m...0g...8.....6.\$]p...9....Z.a.sr.;B.a...m ...>...b..B..K...{...+w?...B3...2...>.....1..-'.!p.....L....\K..P.q.....?>..fd.*w*.y.. y.....i..i.&?.....).e.D ?06.....U.%2t.....6.:..D.B...+~.....M%"fG]b\.[.....1.....".....GC6....J. +.....r.a...ieZ..j.Y...3..Q*m.r.urB.5@.e.v@...gsb.{q...3j.....s.f.j8s\$P.?3H.....0'..6)...bD....^..+....9.;\$...W::jBH...!tK

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\21A36D14.png

Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 1686 x 725, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	79394
Entropy (8bit):	7.864111100215953
Encrypted:	false

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\21A36D14.png	
SSDEEP:	1536:ACLfq2zNFewyOGGGOQZ+6G0GGGLvpP7OGGGeLEnf85dUGkm6COLZgf3BNUdQ:7PzbewyOGGGv+6G0GGG7jpP7OGGGeLEe
MD5:	16925690E9B366EA60B610F517789AF1
SHA1:	9F3FE15AE44644F9ED8C2CA668B7020DF726426B
SHA-256:	C3D7308B11E8C1EFD9C0A7F6EC370A13EC2C87123811865ED372435784579C1F
SHA-512:	AEF16EA5F33602232D60F6B6861980488FD252F14DCAE10A9A328338A6890B081D59DCBD9F5B68E93D394DEF2E71AD06937CE2711290E7DD410451A3B1E54CD
Malicious:	false
Reputation:	moderate, very likely benign file
Preview:	.PNG.....IHDR.....J....sRGB.....gAMA.....a.....pHYs...t...t.f.x....IDATx^...~y....K...E...):.#lk.\$o....a-[-.S..M*A..Bc..i+..e...u["R., (b...IT.0X.)...(.@...F>...v....s.g...x>...9s..q]s.....w...^z.....?.....9D.}w}W..RK.....S..y....S.y....S.J_.qr....l} _....>r.v~..G.*).#.>z_.... .#.fF..?G.....zO.C.....zO.%.....'.....S.y....S.y....S.J_.qr....l} _....>r.v~..G.*).#.>z_....W.-...S.....c.zO.C..N.vO.%.....S.y....S.y....S.J_.qr....l} _....>r.v~..G.*).#.>z_....6.....J.....Sjl.=...}.zO.#.%vO.+...vO.+).R...6.f'.m~m~.=.5C....4[...%uw.....M.r..M.k:N.q4[<..o..k...G.....XE=..b\$G.,K...H'.._nj..kJ_..qr....l} _....>r.v~..G.*).#.>.....R...._j.G...Y.>.!.....O..{...L.)S. .=).>.OU...m.k\$/.x..l...X. e.....?.....\$...F.....>..{.Qb.....

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\221576A9.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 566 x 429, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	84203
Entropy (8bit):	7.979766688932294
Encrypted:	false
SSDEEP:	1536:RpoeM3WUHO25A8HD3So4lL9jvtO63O2l/Wr9nuQvs+9QvM4PmgZuVhDj5v3ZK7+:H5YHOHwx4IRTI06349uQvXJ4PmgZu11J
MD5:	208FD40D2F72D9AED77A86A44782E9E2
SHA1:	216B99E777ED782BDC3BFD1075DB90DFDDABD20F
SHA-256:	CBFDB963E074C150190C93796163F3889165BF4471CA77C39E756CF3F6F703FF
SHA-512:	7BCE80FFA8B0707E4598639023876286B6371AE465A9365FA21D2C01405AB090517C448514880713CA22875013074DB9D5ED8DA93C223F265C179CFADA609A64
Malicious:	false
Reputation:	moderate, very likely benign file
Preview:	.PNG.....IHDR...6.....>(....sRGB.....gAMA.....a.....pHYs.....+.....IDATx^=vI9..H..f.:ZA,'.j.r4.....SEJ,%.VPG..K.=...@.\$ol.e7....U.....>n~&...._rg...l...D.Gl0..G!....?...Oo.7....Cc..G....g>....._o_..._}q...k....ru.T....S.!....~..@Y96.S.....&.1:....o...q.6..S...'.n..H.hS.....y;.N.l.).["f.X.u.n;....._h.(u 0a.....].R.z...2.....GJY ..+b...>vU....i.....w+p..X...._V.-z.s.U..cR..g^..X.....6n...6...O6.-AM.f=y...7...;X....q.. ...= K...w...}O..{[...G.....~.o3....z...m6...sN.0.;/...Y..H..o.....~.....(W'...S.t....m....+K...<.M=...lN.U..C.].5.=...s.g.d.f.<Km..\$.fS...o...:..}@...;k..m.L./\$......}....3%.. j....b.r7.O!F...c'.....\$....)....[O.CK...._.....Nv....q.t3l..,....VD.-.o.k.w....X...-C..K.Gl.d.8.a]} ,.....q.=r..Pf.V#.....n...}.....[w...N.b.W.....:..?Oq..K{>.K....{w{[.....6'/....}.E...X.l.-Y].JJm.j..pq 0...e.v.....17...:F

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\5AE1779F.jpeg	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	JPEG image data, JFIF standard 1.01, aspect ratio, density 1x1, segment length 16, baseline, precision 8, 191x263, frames 3
Category:	dropped
Size (bytes):	8815
Entropy (8bit):	7.944898651451431
Encrypted:	false
SSDEEP:	192:Qjnr2ll8e7li2YRD5x5dlyuaQ0ugZlBn+0O2yHQGYtPto:QZl8e7li2YdRyuZ0b+JGgtPW
MD5:	F06432656347B7042C803FE58F4043E1
SHA1:	4BD52B10B24EADECA4B227969170C1D06626A639
SHA-256:	409F06FC20F252C724072A88626CB29F299167EAE6655D81DF8E9084E62D6CF6
SHA-512:	358FEB8CBFFBE6329F31959F0F03C079CF95B494D3C76CF3669D28CA8CDB42B04307AE46CED1FC0605DEF31D9839A0283B43AA5D409ADC283A1CAD787BE95f0E
Malicious:	false
Reputation:	moderate, very likely benign file
Preview:	JFIF.....) ..(!1!%).....383,7(.....+...7+++++.....".....F.....!."1A..QRa.#2BSq....3b....\$c...C...Er5.....?..x.5.PM.Q@E..l.....i.0.\$G.C...h..Gt..f..O..U..D.t^...uB...V9.f.<..t(.kt..d.@...&3)d@@?..q...t.3!....9.r....Q.(.W.X&..&1&T*.K. kc....[.l.3(f+.c...+...5...hHR.0....^R.G..6...&pB..d.h.04.*+.S...M.....[...'.....J.....<.O.....Yn...T.l.E*G.[l.-.....\$e&.....z..[.3.+~..a.u9d.&9K.xkX'."...Y...l.....MxPu..b.:0e:.R.#.....U...E..4Pd/.0.'4...A...t...2...gbj)b.l.'"&...y1.....l.s>ZA?.....3...z^....Ln6..Am.1m...0../..~y....1.b.0U...5.oi..LH1.f....sl.....f'??...bu.P4>...+B...eL...R....<...3.00\$=..K!..Z.....O.l.z....am....C.k.iZ...<ds....f8f..R....K

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\79B68205.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 1268 x 540, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	51166
Entropy (8bit):	7.767050944061069
Encrypted:	false
SSDEEP:	1536:zdKAgwKoL5H8LiLtoEdJ9OSbB7laAvRXDlBig49A:JDAQ9H8/GMSdhahg49A
MD5:	8C29CF033A1357A8DE6BF1FC4D0B2354
SHA1:	85B228BBC80DC60D40F4D3473E10B742E7B9039E
SHA-256:	E7B744F45621B40AC44F270A9D714312170762CA4A7DAF2BA78D5071300EF454
SHA-512:	F2431F3345AAB82CFCE2F96E1D54E53539964726F2E0DBC1724A836AD6281493291156AAD7CA263B829E4A1210A118E6FA791F198B869B4741CB47047A5E6D6A

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\B8598AE.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 1686 x 725, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	79394
Entropy (8bit):	7.864111100215953
Encrypted:	false
SSDEEP:	1536:ACLfq2zNfewYOGGG0QZ+6G0GGGLvjpP7OGGGeLEnf85dUGkm6COLZgf3BNUdQ:7PzbewyOGGGv+6G0GGG7jpP7OGGGeLEe
MD5:	16925690E9B366EA60B610F517789AF1
SHA1:	9F3FE15AE44644F9ED8C2CA668B7020DF726426B
SHA-256:	C3D7308B11E8C1EFD9C0A7F6EC370A13EC2C87123811865ED372435784579C1F
SHA-512:	AEF16EA5F33602232D60F6B6861980488FD252F14DCAE10A9A328338A6890B081D59DCBD9F5B68E93D394DEF2E71AD06937CE2711290E7DD410451A3B1E54CD
Malicious:	false
Preview:	.PNG.....IHDR.....J.....sRGB.....gAMA.....a.....pHYs...t...t.f.x...IDATx^...~.y....K...E...):.#.lk.\$o.....a-[-.S..M*A..Bc..i+...e...u["R., (b...IT.0X.)...(.@...F>...v....s.g. ...x.>...9s..q]s.....w...^Z.....?.....9D.}w}W..RK.....S.y...S.y...S.J_..qr....l}]._...>r.v~..G.*)..#>z_..._ .#.fF..?G.....zO.C.....zO.%.....'.....S.y...S.y...S.J_..qr....l}]._...>r.v~..G.*)..#>z_..._W~...S.....c..zO.C..N.vO.%.....S.y...S.y...S.J_..qr....l}]._...>r.v~..G.*)..#>z_...&nf..?.....zO.C...O...{J-....._..S.y...S.y...S.J_..qr....l}]._...>r.v~..G.*)..#>z_...6.....J.....Sjl..=...}zO.#.%vO.+...vO.+}.R...6.f'.m~m~.=.5C...4[...%uw.....M.r..M.k.:N.q4[<.o.k..G.....XE=.b\$G.,K...H'._nj..k.J_..qr....l}]._...>r.v~..G.*)..#>.....R....._j.G...Y>..!.....O..{..L.J}S.. .=}>..OU...m.ks/...x..l...X.]e.....?.....\$..F.....>..{.Qb.....

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\B99C14D7.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 1268 x 540, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	51166
Entropy (8bit):	7.767050944061069
Encrypted:	false
SSDEEP:	1536:zdKgAwKoL5H8LiLtoEdJ9OSbB7laAvRXDIBig49A:JDAQ9H8/GMSdhahg49A
MD5:	8C29CF033A1357A8DE6BF1FC4D0B2354
SHA1:	85B228BBC80DC60D40F4D3473E10B742E7B9039E
SHA-256:	E7B744F45621B40AC44F270A9D714312170762CA47DAF2BA78D5071300EF454
SHA-512:	F2431F3345AAB82CFCE2F96E1D54E53539964726F2E0DBC1724A836AD6281493291156AAD7CA263B829E4A1210A118E6FA791F198B869B4741CB47047A5E6D6A
Malicious:	false
Preview:	.PNG.....IHDR.....q~.....sRGB.....gAMA.....a.....pHYs.....o.d...sIDATx^...;...d.....{...m.m...4...h..B.d...%x.?.{w.\$#.Aff..?W.....x.(.....^.....^j.oP.C?@GGGGGGGGGGG?@GGGGG.F)c.....E)....c.....w{}.....e;..._ttttX.....C.....uOV.+..l...]?.....@GGG?@GGG./...uK.WnM'.....s.s ...`.....tttt::.....:z.'...'=.....ttt..g::z.....=.....F..'..sLU..nZ.DGGGGGGGGGG.AGGGGGGGGG.Y.....#~.....7,.....O..b.GZ.....]......]....].CO.vX>..... @GGGw/3.....tttt2...s....n.U.!.....:.....%..'.).w.....>.{.....<.....^..Z...../..=.....~..].q.t...AGGGGGGGGGG?@GGGGGGG...AA.....~.....z...^..l....._ttttX.....C...o.{O.Y1.....=...}^X.....ttt.tttt...f.%.....nAGGGG....[.....=...b...?{.....=.....

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\ID467075B.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 566 x 429, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	84203
Entropy (8bit):	7.979766688932294
Encrypted:	false
SSDEEP:	1536:RrpoE3M3WUHO25A8HD3S04l9JvtO6302l/Wr9nuQvs+9QvM4PmgZuVHdJ5v3ZK7+:H5YHOHwx4lRTtO6349uQvXJ4PmgZu11J
MD5:	208FD40D2F72D9AED77A86A44782E9E2
SHA1:	216B99E777ED782BDC3BFD1075DB90DFDDABD20F
SHA-256:	CBFDB963E074C150190C93796163F3889165BF4471CA77C39E756CF3F6F703FF
SHA-512:	7BCE80FFA8B0707E4598639023876286B6371AE465A9365FA21D2C01405AB090517C448514880713CA22875013074DB9D5ED8DA93C223F265C179CFADA609A64
Malicious:	false
Preview:	.PNG.....IHDR...6.....>(....sRGB.....gAMA.....a.....pHYs.....+.....IDATx^=vI9..H.f....:ZA.,'.j.r4.....SEJ,%.VPG..K.=...@.\$ol.e7....U.....>n~&..._..rg... ..L...D.Gl0..G!;...?..Oo.7....Cc...G...g>....._o..._}q...k....ru..T....S.!....~..@Y96.S....&.1:....o...q.6..S...'..n..H.hS.....y;N.I.).["`f.X.u.n;....._h.{u 0a.....]R.z...2.....GJY  ..+b...{>vU...i.....w+~p..X..._V.-z.s.U..cR..g^..X.....6n...6...O6~.AM.f.=y...7...;X...q.. ..= K..w...}O..{ ...G.....~..o3.....z...m6...sN.0.;/...Y..H..o.....~..... [W`...S.t.....m....+K...<..M=...lN.U..C.]J.5.=...s.g.d.f.<Km..\$.fS...o....}@...;k..m.L./\$......}....b.r7.O!F...c'.....\$...)[O.CK...._Nv....q.t3l;...VD~..o.k.w....X~... C..KGld.8.a} ,.....q.=r..Pf.V#.....n...}.....[w...N.b.W.....:?.Oq..K{>.K....{w{[.....6'/....}.E...X.l.-Y].Jjm.j.pq 0...e.v.....17...:F

C:\Users\user1\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\IDEDF5C96.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 399 x 605, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	50311
Entropy (8bit):	7.960958863022709
Encrypted:	false
SSDEEP:	768:hfo72tRlBZeeRugjJ8yooVAK92SYAD0PSsX35SVFN0t3HcoNz8WEK6Hm8bbxXVGx:hfoWBueSoVAKxLD06w35SEVNz8im0AEH
MD5:	4141C7515CE64FED13BE6D2BA33299AA
SHA1:	B290F533537A734B7030CE1269AC8C5398754194

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\DEDFF5C96.png	
SHA-256:	F6B0FE628E1469769E6BD3660611B078CECF6EE396F693361B1B42A9100973B75
SHA-512:	74E9927BF0C6F8CB9C3973FD68DAD12B422DC4358D5CCED956BC6A20139B21D929E47165F77D208698924CB7950A7D5132953C75770E4A357580BF271BD9BD8
Malicious:	false
Preview:	.PNG.....IHDR.....].....^.....gAMA.....a....sRGB..... cHRM.z&.....u0...`.....p.Q<...bKGD.....oFFs.....F.#nT...pHYs.%...%IR\$.....vpAg.....0.....IDATx..hw...V!...D.....4.p.X(r.x.&.K.(L.P.d5.R.....b.....C.BP...,,%.....q[.,!E.ni.t.....H_.....G.]-=>....#.J!.N.a.a.Q.V...t.M.v;=.0.s.ixaa.0.<...`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.a.q+.a.5.<.a.`al.h6.j].22.g4M.....C.u.y.-'...'a.?~W.li>7q.j.y....iLNN.....5l.w".b~--J.sssm.d.Y.u.G.....s.l.R.'qq.....C;.\$.&.2.x.J.fgg..]=g.Y.y.N.(SN.S8.eZ.T.=...4.??~uK{,,,SSS,,iY.Q.n.i.u\k.o.,av.N(.H.B.X.....amm,.h4.t.;j.j.tz[(.#.)yy./,"z-[!4.a.:jj,,,,dY7.[f.F.\~-g...x.Y.R.L.....w.l.h.K.h.nM

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSOF77229A3.emf	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	Windows Enhanced Metafile (EMF) image data version 0x10000
Category:	dropped
Size (bytes):	648132
Entropy (8bit):	2.8124530118203914
Encrypted:	false
SSDEEP:	3072:134UL0tS6WB0JQqFB5AEA7rgXuzqr8nG/qc+L+:!4UcLe0JOcXuuhqcJ
MD5:	955A9E08DFD3A0E31C7BCF66F9519FFC
SHA1:	F677467423105ACF39B76CB366F08152527052B3
SHA-256:	08A70584E1492DA4EC8557567B12F3EA3C375DAD72EC15226CAFB857527E86A5
SHA-512:	39A2A0C062DEB58768083A946B8BCE0E46FDB2F9DDFB487FE9C544792E50FEBB45CEEE37627AA0B6FEC1053AB48841219E12B7E4B97C51F6A4FD308B5255568
Malicious:	false
Preview:	

C:\Users\user\Desktop\~\$BL_SGN11203184.xlsx	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	data
Category:	dropped
Size (bytes):	330
Entropy (8bit):	1.4377382811115937
Encrypted:	false
SSDEEP:	3:vZ/FFDJw2fj/FFDJw2fV:vBFFGaFFGS
MD5:	96114D75E30EBD26B572C1FC83D1D02E
SHA1:	A44EEBDA5EB09862AC46346227F06F8CFAF19407
SHA-256:	0C6F8CF0E504C17073E4C614C8A7063F194E335D840611EEFA9E29C7CED1A523
SHA-512:	52D33C36DF2A91E63A9B1949FDC5D69E6A3610CD3855A2E3FC25017BF0A12717FC15EB8AC6113DC7D69C06AD4A83FAF0F021AD7C8D30600AA8168348BD0FA90
Malicious:	true
Preview:	<pre> .user ..A.I.b.u.s.user </pre>

C:\Users\Public\vlc.exe		 
Process:	C:\Program Files\Common Files\Microsoft Shared\EQUATION\EQNEDT32.EXE	
File Type:	PE32 executable (GUI) Intel 80386, for MS Windows	
Category:	dropped	
Size (bytes):	147456	
Entropy (8bit):	5.607689655560483	
Encrypted:	false	
SSDEEP:	1536:Fttu3FssKUmv9DJ1FJS1bQNZ6bp/+Dtr5m3XSt4IYS0eXJWUTFboob:ztu3alxx3fSQmbs55r4l6eXJWUB0ob	
MD5:	99BBF83ABE9D6E4ECC91493E32230833	
SHA1:	B0BD6BA2DC10EB5552EDC7A3460C80EE0EB1B11E	
SHA-256:	2B2A00650DC91D1A7CCFA4A62E3462762C62D8A092BDD75943F87074F1D56A5	
SHA-512:	0F6B9F9A843F491B925AAB0AF5D4F08024A2D430C41022C23AFB46CE3ABDF7881E8D87AC6D93F5ADFC2F11AEE0F0BB0AC28FA2500EC118BC1ED496281D3AF1C6	
Malicious:	true	
Yara Hits:	• Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: C:\Users\Public\vlc.exe, Author: Joe Security	
Antivirus:	• Antivirus: Metadefender, Detection: 31%, Browse • Antivirus: ReversingLabs, Detection: 59%	



Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....#...B...B..L^...B...`...B...d...B..Rich.B.....PE..L.....G..... ....0.....@.....P...0.....\$...(..@..P.....(.....text..... ..`data...P.....@....rsrc...P...@...0.....@...@...I.....MSVBVM60.DLL.....
----------	---

Static File Info

General	
File type:	CDFV2 Encrypted
Entropy (8bit):	7.995550090763264
TrID:	Generic OLE2 / Multistream Compound File (8008/1) 100.00%
File name:	BL_SGN11203184.xlsx
File size:	1317888
MD5:	06eb9a2b3d7113604968b87722ed242a
SHA1:	2a6929b76b8b69a4e3a3766881280c63af765cb1
SHA256:	1554d0f1b36381c9a323749cd62b7870c8273d8020fc81df09cb159a3bb84acc
SHA512:	1f0f84d1c7bb6da1a66bbe25bd29336e4b1e84af67125ee7da47caf0ef523c9a5bb1df023d9d91c83c03e29b5a5c38784780756368e7f4ee35cd39afbc9b3bf6
SSDEEP:	24576:BL0fDpdsXTvalhcjRG0WZQK2TxwjkI59qAusGovj/MWNFhb/W+:Bgne7aptGxblqspSG0rMWNFZO+
File Content Preview:	>.....~.....Z.....

File Icon

	
Icon Hash:	e4e2aa8aa4b4bcb4

Static OLE Info

General	
Document Type:	OLE
Number of OLE Files:	1

OLE File "BL_SGN11203184.xlsx"

Indicators	
Has Summary Info:	False
Application Name:	unknown
Encrypted Document:	True
Contains Word Document Stream:	False
Contains Workbook/Book Stream:	False
Contains PowerPoint Document Stream:	False
Contains Visio Document Stream:	False
Contains ObjectPool Stream:	
Flash Objects Count:	
Contains VBA Macros:	False

Streams

Network Behavior

Snort IDS Alerts

Timestamp	Protocol	SID	Message	Source Port	Dest Port	Source IP	Dest IP
06/10/21-15:17:32.895609	TCP	2022550	ET TROJAN Possible Malicious Macro DL EXE Feb 2016	49167	80	192.168.2.22	103.155.82.236

Network Port Distribution

TCP Packets

HTTP Request Dependency Graph

- 103.155.82.236

HTTP Packets

Session ID	Source IP	Source Port	Destination IP	Destination Port	Process
0	192.168.2.22	49167	103.155.82.236	80	C:\Program Files\Common Files\Microsoft Shared\EQUATION\EQNT32.EXE

[illegible]

Code Manipulations

Statistics

Behavior

 Click to jump to process

System Behavior

Analysis Process: EXCEL.EXE PID: 1920 Parent PID: 584

General

Start time:	15:16:46
Start date:	10/06/2021
Path:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
Wow64 process (32bit):	false
Commandline:	'C:\Program Files\Microsoft Office\Office14\EXCEL.EXE' /automation -Embedding
Imagebase:	0x13f760000
File size:	27641504 bytes
MD5 hash:	5FB0A0F93382ECD19F5F499A5CAA59F0
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

File Written

Registry Activities

Show Windows behavior

Key Created

Key Value Created

Analysis Process: EQNEDT32.EXE PID: 2396 Parent PID: 584

General

Start time:	15:17:07
Start date:	10/06/2021
Path:	C:\Program Files\Common Files\Microsoft Shared\EQUATION\EQNEDT32.EXE
Wow64 process (32bit):	true
Commandline:	'C:\Program Files\Common Files\Microsoft Shared\EQUATION\EQNEDT32.EXE' -Embedding
Imagebase:	0x400000
File size:	543304 bytes
MD5 hash:	A87236E214F6D42A65F5DEDAC816AEC8
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

Key Created

Analysis Process: vbc.exe PID: 2824 Parent PID: 2396

General

Start time:	15:17:11
Start date:	10/06/2021
Path:	C:\Users\Public\vbc.exe
Wow64 process (32bit):	true
Commandline:	'C:\Users\Public\vbc.exe'
Imagebase:	0x400000
File size:	147456 bytes
MD5 hash:	99BBF83ABE9D6E4ECC91493E32230833
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	Visual Basic
Yara matches:	• Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: 00000004.00000000.2151758048.0000000000401000.00000020.00020000.sdmp, Author: Joe Security • Rule: JoeSecurity_GuLoader_2, Description: Yara detected GuLoader, Source: 00000004.00000002.2364907663.0000000000440000.00000040.00000001.sdmp, Author: Joe Security • Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: 00000004.00000002.2364880980.0000000000401000.00000020.00020000.sdmp, Author: Joe Security • Rule: JoeSecurity_GuLoader_1, Description: Yara detected GuLoader, Source: C:\Users\Public\vbc.exe, Author: Joe Security
Antivirus matches:	• Detection: 31%, Metadefender, Browse • Detection: 59%, ReversingLabs
Reputation:	low

Disassembly

Code Analysis