

JOeSandbox Cloud BASIC



ID: 736957

Sample Name: xls.xls

Cookbook:

defaultwindowsofficecookbook.jbs

Time: 12:44:29

Date: 03/11/2022

Version: 36.0.0 Rainbow Opal

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Windows Analysis Report

xls.xls

Overview

General Information

Sample Name:	xls.xls
Analysis ID:	736957
MD5:	109d15a7d33e67..
SHA1:	c6660d40673400..
SHA256:	822d2e533e0537..
Tags:	xls
Infos:	

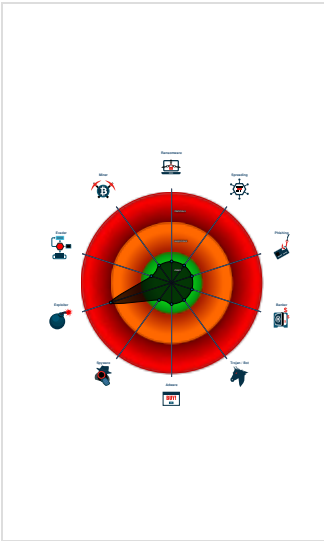
Detection

MALICIOUS SUSPICIOUS CLEAN UNKNOWN	
Score:	68
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

Multi AV Scanner detection for subm...
Document contains an embedded V...
Document contains an embedded V...
Document contains an embedded V...
Machine Learning detection for sam...
Document contains an embedded V...
Document contains embedded VBA...
Potential document exploit detected...
Potential document exploit detected...
Potential document exploit detected...

Classification



Process Tree

▪ System is w10x64
▪ EXCELEXE (PID: 5752 cmdline: "C:\Program Files (x86)\Microsoft Office\Office16\EXCEL.EXE" /automation -Embedding MD5: 5D6638F2C8F8571C593999C58866007E)
▪ cleanup

Malware Configuration

No configs have been found

Yara Signatures

No yara matches

Sigma Signatures

No Sigma rule has matched

Snort Signatures

No Snort rule has matched

Joe Sandbox Signatures

AV Detection



Multi AV Scanner detection for submitted file

Machine Learning detection for sample

System Summary



Document contains an embedded VBA with functions possibly related to ADO stream file operations

Document contains an embedded VBA macro which may execute processes

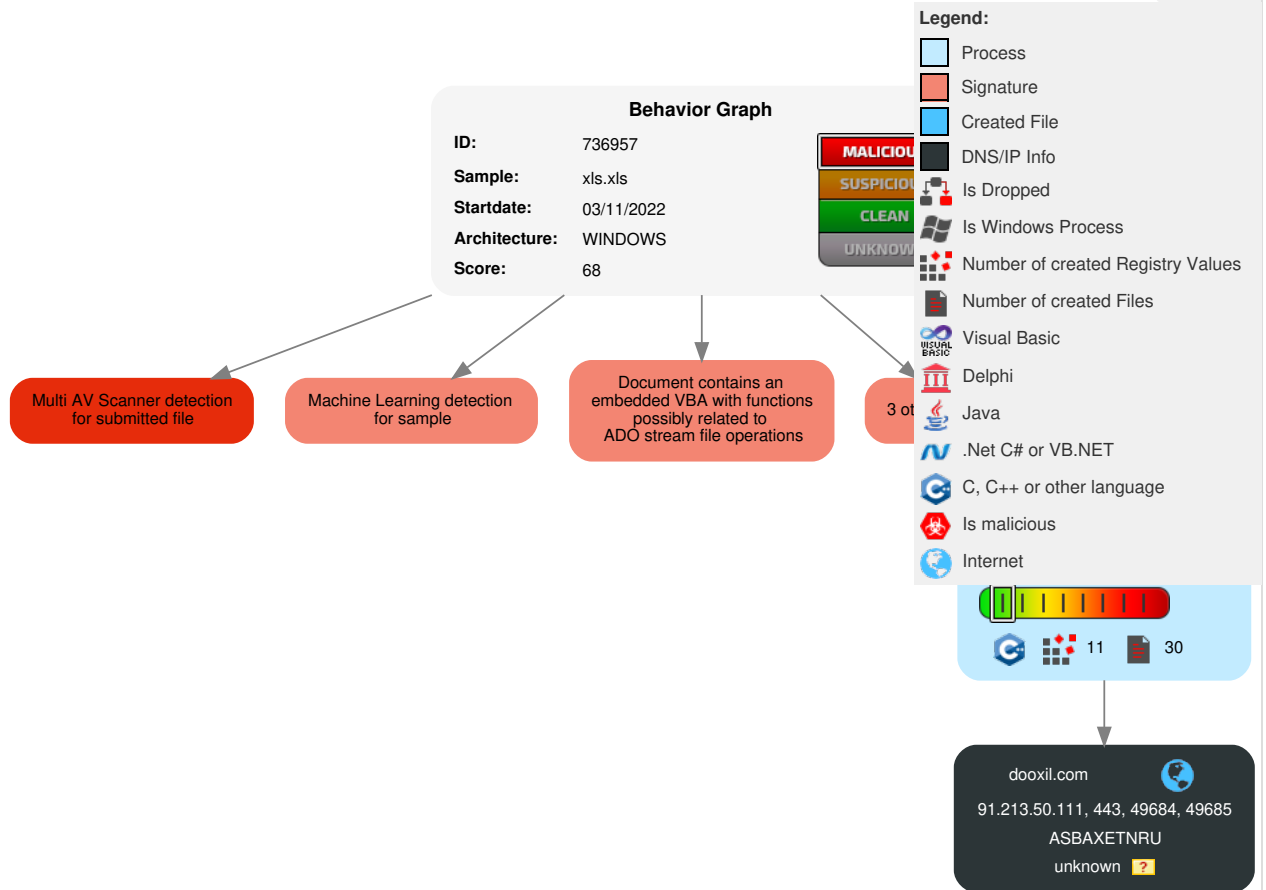
Document contains an embedded VBA macro with suspicious strings

Document contains an embedded VBA with functions possibly related to HTTP operations

Mitre Att&ck Matrix

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects	Remote Service Effects	Impact
Valid Accounts	4 1 Scripting	Path Interception	Path Interception	4 1 Scripting	OS Credential Dumping	1 File and Directory Discovery	Remote Services	Data from Local System	Exfiltration Over Other Network Medium	2 Encrypted Channel	Eavesdrop on Insecure Network Communication	Remotely Track Device Without Authorization	Modify System Partition
Default Accounts	3 Exploitation for Client Execution	Boot or Logon Initialization Scripts	Boot or Logon Initialization Scripts	Rootkit	LSASS Memory	1 System Information Discovery	Remote Desktop Protocol	Data from Removable Media	Exfiltration Over Bluetooth	1 Non-Application Layer Protocol	Exploit SS7 to Redirect Phone Calls/SMS	Remotely Wipe Data Without Authorization	Device Lockout
Domain Accounts	At (Linux)	Logon Script (Windows)	Logon Script (Windows)	Obfuscated Files or Information	Security Account Manager	Query Registry	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	1 2 Application Layer Protocol	Exploit SS7 to Track Device Location	Obtain Device Cloud Backups	Delete Device Data

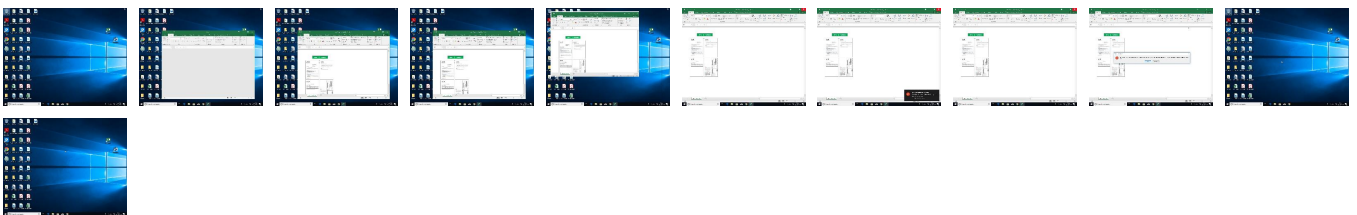
Behavior Graph

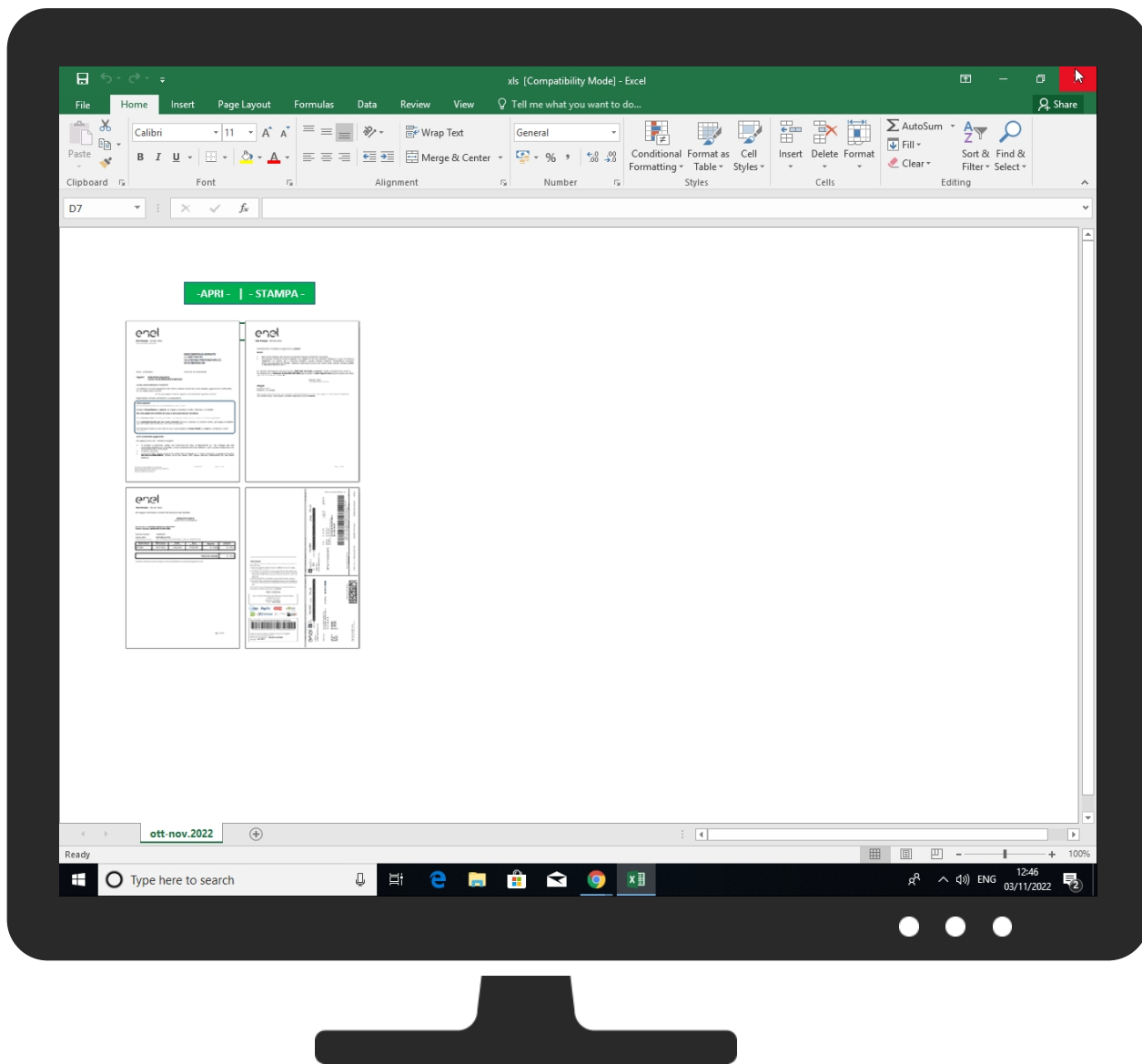


Screenshots

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
xls.xls	17%	ReversingLabs	Win32.Trojan.Valyria	
xls.xls	40%	Virustotal		Browse
xls.xls	100%	Joe Sandbox ML		

Dropped Files

 No Antivirus matches

Unpacked PE Files

 No Antivirus matches

Domains

 No Antivirus matches

URLs

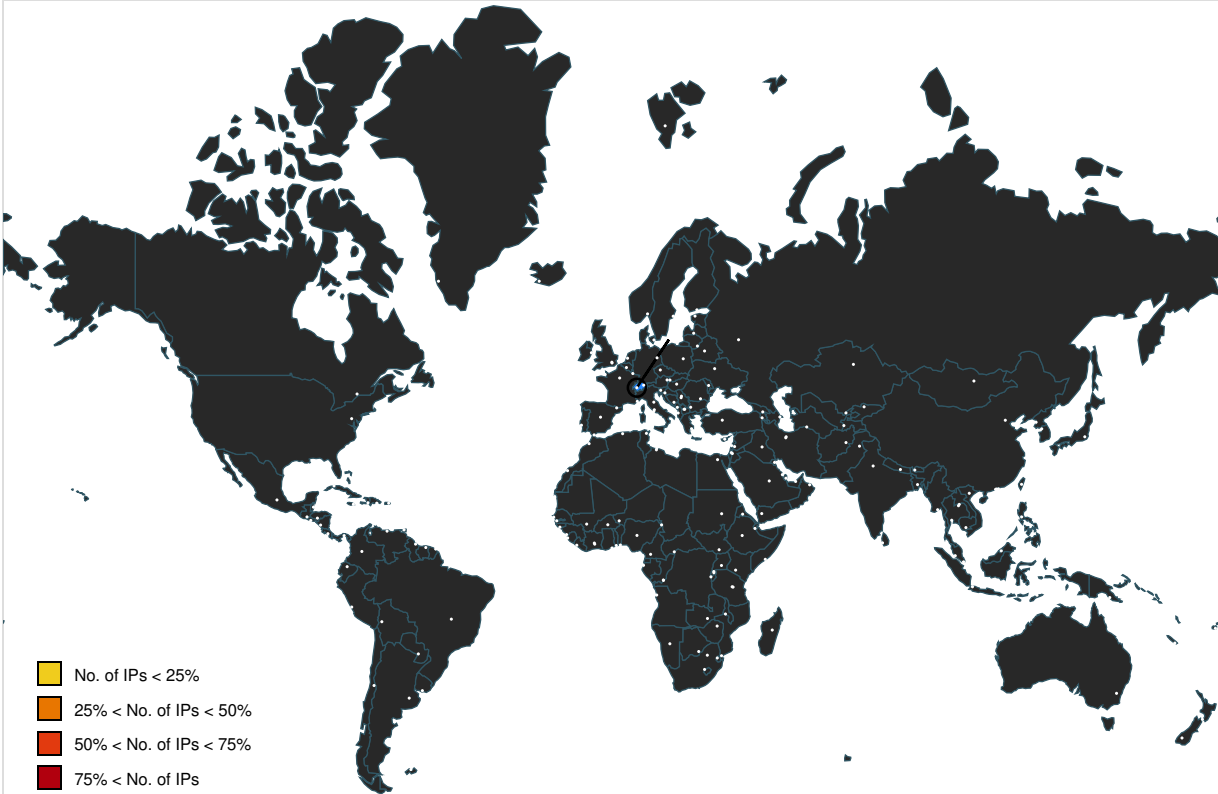
 No Antivirus matches

Domains and IPs

Contacted Domains

Name	IP	Active	Malicious	Antivirus Detection	Reputation
dooxil.com	91.213.50.111	true	false		unknown

World Map of Contacted IPs



Public IPs

IP	Domain	Country	Flag	ASN	ASN Name	Malicious
91.213.50.111	dooxil.com	unknown		49392	ASBAXETNRU	false

General Information

Joe Sandbox Version:	36.0.0 Rainbow Opal
Analysis ID:	736957
Start date and time:	2022-11-03 12:44:29 +01:00
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 8m 31s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	xls.xls
Cookbook file name:	defaultwindowsofficecookbook.jbs
Analysis system description:	Windows 10 64 bit v1803 with Office Professional Plus 2016, Chrome 104, IE 11, Adobe Reader DC 19, Java 8 Update 211
Run name:	Potential for more IOCs and behavior
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 • GSI enabled (VBA) • AMSI enabled
Analysis Mode:	default
Analysis stop reason:	Timeout
Detection:	MAL
Classification:	mal68.expl.winXLS@1/0@1/1
EGA Information:	Failed
HDC Information:	Failed
HCA Information:	• Successful, ratio: 100% • Number of executed functions: 0 • Number of non-executed functions: 0
Cookbook Comments:	• Found application associated with file extension: .xls • Changed system and user locale, location and keyboard layout to Italian - Italy • Found Word or Excel or PowerPoint or XPS Viewer • Attach to Office via COM • Active Picture Object • Close Viewer

Warnings

- Exclude process from analysis (whitelisted): MpCmdRun.exe, HxTsr.exe, RuntimeBroker.exe, WMIADAP.exe, conhost.exe, svchost.exe
- Excluded domains from analysis (whitelisted): ocos-office365-s2s.msedge.net, client-office365-tas.msedge.net, ctldl.windowsupdate.com, config.edge.skype.com
- Not all processes where analyzed, report is missing behavior information
- Report size getting too big, too many NtReadVirtualMemory calls found.

Simulations

Behavior and APIs

 No simulations

Joe Sandbox View / Context

IPs

 No context

Domains

 No context

ASNs

 No context

JA3 Fingerprints

 No context

Dropped Files

 No context

Created / dropped Files

 No created / dropped files found

Static File Info

General

File type:	Composite Document File V2 Document, Little Endian, Os: Windows, Version 10.0, Code page: 1252, Author: Enel SpA, Name of Creating Application: Microsoft Excel, Create Time/Date: Thu Nov 3 08:32:50 2022, Last Saved Time/Date: Thu Nov 3 08:32:57 2022, Security: 0
Entropy (8bit):	5.342866000055418
TrID:	- Microsoft Excel sheet (30009/1) 78.94% - Generic OLE2 / Multistream Compound File (8008/1) 21.06%
File name:	xls.xls
File size:	69120
MD5:	109d15a7d33e671ded911d97bc4a15ab
SHA1:	c6660d40673400505c70af85dfddc735fa50a39f
SHA256:	822d2e533e0537f92fa3ddcbd8cb2a0d7c33ba2ada626e1cae4ecf466ac61e9b
SHA512:	1789d8a5381b24d58150eebf1748b7fa7c5c0782acf53796b517f258d178d6175d4e78717fd4a64c206fd0ee9d8b9bd29444ccc1ef35a337b8ad50548146ce30
SSDEEP:	1536:JcblykElbSkKBEqEXPgsRZmbaoFhZhR0cixlHm0YtjY+N81LobstclUvcGJ/uW:2blykEluPm3fNRZmbaoFhZhR0cixlHmZ
TLSH:	E1630969775AC987D6552F364CE6D7E97336BC40AE9B83073104B73E6F7A6C0C902206
File Content Preview:	>.....<.....

File Icon



Icon Hash:	74ecd4c6c3c6c4d8
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Static OLE Info

General

Document Type:	OLE
Number of OLE Files:	1

OLE File "xls.xls"

Indicators

Has Summary Info:	
Application Name:	Microsoft Excel
Encrypted Document:	False
Contains Word Document Stream:	False
Contains Workbook/Book Stream:	True
Contains PowerPoint Document Stream:	False
Contains Visio Document Stream:	False
Contains ObjectPool Stream:	False
Flash Objects Count:	0
Contains VBA Macros:	True

Summary

Code Page:	1252
Author:	
Last Saved By:	
Create Time:	2022-11-03 08:32:50.891000
Last Saved Time:	2022-11-03 08:32:57
Creating Application:	
Security:	0

Document Summary

Document Code Page:	1252
Thumbnail Scaling Desired:	False
Company:	
Contains Dirty Links:	False
Shared Document:	False

Changed Hyperlinks:	False
Application Version:	1048576

Streams with VBA

VBA File Name: Foglio1.cls, Stream Size: 13465

General

[illegible]

VBA Code

VBA File Name: Questa_cartella_di_lavoro.cls, **Stream Size:** 1203

General

[illegible]

VBA Code

Streams

Stream Path: \x1CompObj, **File Type:** data, **Stream Size:** 117

General

Stream Path:	\\x1CompObj
File Type:	data
Stream Size:	117
Entropy:	4.295052233063858
Base64 Encoded:	True
Data ASCII:	F)....Foglio di lavoro di Microsoft Excel 2003.....Biff8.....Excel.Sheet.8.9q.....
Data Raw:	01 00 fe ff 03 0a 00 00 ff ff ff ff 20 08 02 00 00 00 00 c0 00 00 00 00 00 46 29 00 00 00 46 6f 67 6c 69 6f 20 64 69 20 6c 61 76 6f 72 6f 20 64 69 20 4d 69 63 72 6f 73 6f 66 74 20 45 78 63 65 6c 20 32 30 30 33 00 06 00 00 00 42 69 66 66 38 00 0e 00 00 00 45 78 63 65 6c 2e 53 68 65 65 74 2e 38 00 f4 39 b2 71 00 00 00 00 00 00 00 00 00 00

Stream Path: \x5DocumentSummaryInformation, **File Type:** data, **Stream Size:** 256

General

Stream Path:	\\x5DocumentSummaryInformation
File Type:	data
Stream Size:	256
Entropy:	2.843729876697485
Base64 Encoded:	True
Data ASCII:	+ , 0.....P.....X.....d.....l.....t.....ott-nov.2022.....Fogli di lavoro.....

Timestamp	Source Port	Dest Port	Source IP	Dest IP
Nov 3, 2022 12:46:23.901755095 CET	443	49684	91.213.50.111	192.168.2.5
Nov 3, 2022 12:46:23.901866913 CET	49684	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:46:23.909301996 CET	49684	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:46:23.909348011 CET	443	49684	91.213.50.111	192.168.2.5
Nov 3, 2022 12:48:34.267613888 CET	443	49684	91.213.50.111	192.168.2.5
Nov 3, 2022 12:48:34.271982908 CET	49685	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:48:34.272059917 CET	443	49685	91.213.50.111	192.168.2.5
Nov 3, 2022 12:48:34.272176981 CET	49685	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:48:34.272639036 CET	49685	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:48:34.272672892 CET	443	49685	91.213.50.111	192.168.2.5
Nov 3, 2022 12:50:45.339247942 CET	443	49685	91.213.50.111	192.168.2.5
Nov 3, 2022 12:50:45.343519926 CET	49689	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:50:45.343581915 CET	443	49689	91.213.50.111	192.168.2.5
Nov 3, 2022 12:50:45.343719006 CET	49689	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:50:45.343904972 CET	49689	443	192.168.2.5	91.213.50.111
Nov 3, 2022 12:50:45.343949080 CET	443	49689	91.213.50.111	192.168.2.5
Nov 3, 2022 12:50:45.344654083 CET	49689	443	192.168.2.5	91.213.50.111

UDP Packets

Timestamp	Source Port	Dest Port	Source IP	Dest IP
Nov 3, 2022 12:46:23.721085072 CET	60136	53	192.168.2.5	8.8.8.8
Nov 3, 2022 12:46:23.889734983 CET	53	60136	8.8.8.8	192.168.2.5

DNS Queries

Timestamp	Source IP	Dest IP	Trans ID	OP Code	Name	Type	Class	DNS over HTTPS
Nov 3, 2022 12:46:23.721085072 CET	192.168.2.5	8.8.8.8	0xa44c	Standard query (0)	dooxil.com	A (IP address)	IN (0x0001)	false

DNS Answers

Timestamp	Source IP	Dest IP	Trans ID	Reply Code	Name	CName	Address	Type	Class	DNS over HTTPS
Nov 3, 2022 12:46:23.889734983 CET	8.8.8.8	192.168.2.5	0xa44c	No error (0)	dooxil.com		91.213.50.111	A (IP address)	IN (0x0001)	false

Statistics

 No statistics

System Behavior

Analysis Process: EXCEL.EXE PID: 5752, Parent PID: 788

General

Target ID:	0
Start time:	12:45:29
Start date:	03/11/2022
Path:	C:\Program Files (x86)\Microsoft Office\Office16\EXCEL.EXE
Wow64 process (32bit):	true
Commandline:	"C:\Program Files (x86)\Microsoft Office\Office16\EXCEL.EXE" /automation -Embedding
Imagebase:	0xa50000
File size:	27110184 bytes

MD5 hash:	5D6638F2C8F8571C593999C58866007E
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

File Created

File Path	Access	Attributes	Options	Completion	Count	Source Address	Symbol
C:\Users\user\AppData\Local\Temp\~DFF923C22ADA0AC914.TMP	read attributes synchronize generic read generic write	device	synchronous io non alert non directory file	success or wait	1	675892AB	unknown
C:\Users\user	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local\Microsoft\Windows\NetCache	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local\Microsoft\Windows\NetCookies	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local\Microsoft\Windows\NetCookies	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown

File Path	Access	Attributes	Options	Completion	Count	Source Address	Symbol
C:\Users\user\AppData\Local	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown
C:\Users\user\AppData\Local\Microsoft\Windows\History	read data or list directory synchronize	device	directory file synchronous io non alert open for backup ident open reparse point	object name collision	1	675DD539	unknown

File Path	Completion	Count	Source Address	Symbol
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File Written								
File Path	Offset	Length	Value	Ascii	Completion	Count	Source Address	Symbol
unknown	0	2	75 6e 6b 6e 6f 77 6e	unknown	success or wait	1	6FA29601	WriteFile
unknown	2	44	75 6e 6b 6e 6f 77 6e	unknown	success or wait	1	6FA29601	WriteFile
unknown	46	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	1	6FA29601	WriteFile
unknown	50	36	75 6e 6b 6e 6f 77 6e	unknown	success or wait	1	6FA29601	WriteFile
unknown	86	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	1	6FA29601	WriteFile
unknown	90	38	75 6e 6b 6e 6f 77 6e	unknown	success or wait	4	6FA29601	WriteFile
unknown	128	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	4	6FA29601	WriteFile
unknown	176	20	75 6e 6b 6e 6f 77 6e	unknown	success or wait	2	6FA29601	WriteFile
unknown	196	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	4	6FA29601	WriteFile
unknown	200	68	75 6e 6b 6e 6f 77 6e	unknown	success or wait	4	6FA29601	WriteFile
unknown	814	20	75 6e 6b 6e 6f 77 6e	unknown	success or wait	2	6FA29601	WriteFile
unknown	834	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	6	6FA29601	WriteFile
unknown	838	68	75 6e 6b 6e 6f 77 6e	unknown	success or wait	8	6FA29601	WriteFile
unknown	1082	158	75 6e 6b 6e 6f 77 6e	unknown	success or wait	4	6FA29601	WriteFile
unknown	1240	4	75 6e 6b 6e 6f 77 6e	unknown	success or wait	11	6FA29601	WriteFile
unknown	1286	68	75 6e 6b 6e 6f 77 6e	unknown	success or wait	11	6FA29601	WriteFile

File Path	Offset	Length	Completion	Count	Source Address	Symbol
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Registry Activities					
Key Created					
Key Path	Completion	Count	Source Address	Symbol	
HKEY_CURRENT_USER\Software\Microsoft\Office\Common\ExdCache	success or wait	1	AC20F4	RegCreateKeyEx W	
HKEY_CURRENT_USER\Software\Microsoft\Office\Common\ExdCache\Excel8.0	success or wait	1	AC211C	RegCreateKeyEx W	
HKEY_CURRENT_USER\Software\Microsoft\VBA	success or wait	1	675C8A84	RegCreateKeyEx A	
HKEY_CURRENT_USER\Software\Microsoft\VBA\7.1	success or wait	1	675C8A84	RegCreateKeyEx A	
HKEY_CURRENT_USER\Software\Microsoft\VBA\7.1\Common	success or wait	1	675C8A84	RegCreateKeyEx A	

Key Value Created							
Key Path	Name	Type	Data	Completion	Count	Source Address	Symbol
HKEY_CURRENT_USER\Software\Microsoft\Office\Common\ExdCache\Excel8.0	MSForms	dword	1	success or wait	1	AC213B	RegSetValueEx W
HKEY_CURRENT_USER\Software\Microsoft\Office\Common\ExdCache\Excel8.0	MSComctlLib	dword	1	success or wait	1	AC213B	RegSetValueEx W

Key Path	Name	Type	Old Data	New Data	Completion	Count	Source Address	Symbol
----------	------	------	----------	----------	------------	-------	----------------	--------

Disassembly

 No disassembly