

JoeSandbox Cloud BASIC



ID: 491755

Sample Name: #Qbot
downloader

Cookbook:

defaultwindowsofficecookbook.jbs

Time: 21:18:40

Date: 27/09/2021

Version: 33.0.0 White Diamond

Table of Contents

Table of Contents	2
Windows Analysis Report #Qbot downloader	4
Overview	4
General Information	4
Detection	4
Signatures	4
Classification	4
Process Tree	4
Malware Configuration	4
Yara Overview	4
Initial Sample	4
Memory Dumps	5
Unpacked PEs	5
Sigma Overview	5
System Summary:	5
Persistence and Installation Behavior:	5
Jbx Signature Overview	5
AV Detection:	5
Software Vulnerabilities:	5
System Summary:	5
Persistence and Installation Behavior:	6
Boot Survival:	6
Hooking and other Techniques for Hiding and Protection:	6
HIPS / PFW / Operating System Protection Evasion:	6
Stealing of Sensitive Information:	6
Remote Access Functionality:	6
Mitre Att&ck Matrix	6
Behavior Graph	7
Screenshots	7
Thumbnails	7
Antivirus, Machine Learning and Genetic Malware Detection	8
Initial Sample	8
Dropped Files	8
Unpacked PE Files	8
Domains	8
URLs	8
Domains and IPs	9
Contacted Domains	9
Contacted URLs	9
URLs from Memory and Binaries	9
Contacted IPs	9
Public	9
General Information	9
Simulations	10
Behavior and APIs	10
Joe Sandbox View / Context	10
IPs	10
Domains	10
ASN	10
JA3 Fingerprints	11
Dropped Files	11
Created / dropped Files	11
Static File Info	13
General	13
File Icon	14
Static OLE Info	14
General	14
OLE File "#Qbot downloader.xls"	14
Indicators	14
Summary	14
Document Summary	14
Streams with VBA	14
Streams	14
Network Behavior	15
Network Port Distribution	15
TCP Packets	15
HTTP Request Dependency Graph	15
HTTP Packets	15
Code Manipulations	16
Statistics	16
Behavior	16
System Behavior	16
Analysis Process: EXCEL.EXE PID: 2812 Parent PID: 596	16

General	16
File Activities	17
File Created	17
File Deleted	17
File Moved	17
File Written	17
Registry Activities	17
Key Created	17
Key Value Created	17
Analysis Process: regsvr32.exe PID: 2516 Parent PID: 2812	17
General	17
File Activities	17
File Read	17
Analysis Process: regsvr32.exe PID: 2852 Parent PID: 2516	17
General	17
File Activities	18
Analysis Process: explorer.exe PID: 1172 Parent PID: 2852	18
General	18
File Activities	18
File Created	18
File Written	18
File Read	18
Registry Activities	18
Key Created	18
Key Value Created	18
Key Value Modified	18
Analysis Process: regsvr32.exe PID: 2968 Parent PID: 2812	18
General	18
File Activities	19
File Read	19
Analysis Process: schtasks.exe PID: 2556 Parent PID: 1172	19
General	19
Analysis Process: regsvr32.exe PID: 2528 Parent PID: 2968	19
General	19
File Activities	19
Analysis Process: explorer.exe PID: 236 Parent PID: 2528	19
General	19
File Activities	20
File Written	20
File Read	20
Analysis Process: regsvr32.exe PID: 672 Parent PID: 1672	20
General	20
File Activities	20
File Read	20
Analysis Process: regsvr32.exe PID: 1500 Parent PID: 672	20
General	20
File Activities	21
Analysis Process: regsvr32.exe PID: 804 Parent PID: 2812	21
General	21
Analysis Process: explorer.exe PID: 1308 Parent PID: 1500	21
General	21
File Activities	21
File Created	21
File Written	21
File Read	21
Registry Activities	21
Key Created	21
Key Value Created	21
Key Value Modified	22
Analysis Process: reg.exe PID: 1684 Parent PID: 1308	22
General	22
Registry Activities	22
Key Value Created	22
Analysis Process: reg.exe PID: 536 Parent PID: 1308	22
General	22
Registry Activities	22
Key Value Created	22
Analysis Process: regsvr32.exe PID: 2072 Parent PID: 1672	22
General	22
File Activities	23
File Read	23
Analysis Process: regsvr32.exe PID: 2312 Parent PID: 2072	23
General	23
Disassembly	23
Code Analysis	23

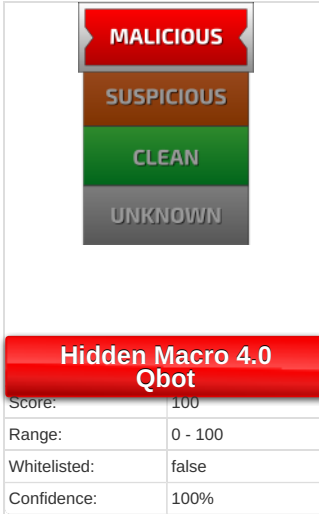
Windows Analysis Report #Qbot downloader

Overview

General Information

Sample Name:	#Qbot downloader (renamed file extension from none to xls)
Analysis ID:	491755
MD5:	b4b3a2223765ac...
SHA1:	57bc35cb0c7a9a...
SHA256:	3982ae3e61a6ba..
Tags:	downloader Qbot xlxs
Infos:	
Most interesting Screenshot:	

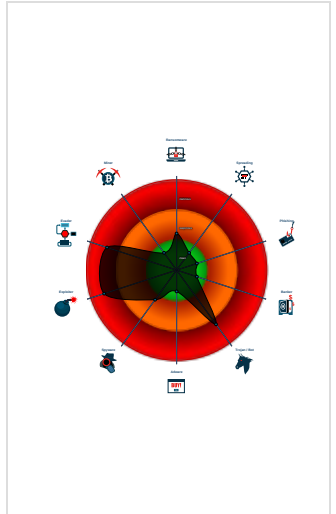
Detection



Signatures

- Yara detected Qbot
- Document exploit detected (drops P...
- Sigma detected: Schedule system p...
- Office document tries to convince vi...
- Maps a DLL or memory area into an...
- Overwrites code with unconditional j...
- Office process drops PE file
- Writes to foreign memory regions
- Uses cmd line tools excessively to a...
- Sigma detected: Microsoft Office Pr...
- Allocates memory in foreign process...
- Injects code into the Windows Explo...

Classification



```

System is w7x64
• EXCEL.EXE (PID: 2812 cmdline: 'C:\Program Files\Microsoft Office\Office14\EXCEL.EXE' /automation -Embedding MD5: D53B85E21886D2AF9815C377537BCAC3)
  • regsvr32.exe (PID: 2516 cmdline: regsvr32 -silent ..\Drezd.red MD5: 59BCE9F07985F8A4204F4D6554CFF708)
    • regsvr32.exe (PID: 2852 cmdline: -silent ..\Drezd.red MD5: 432BE6CF7311062633459EEF6B242FB5)
      • explorer.exe (PID: 1172 cmdline: C:\Windows\SysWOW64\explorer.exe MD5: 6DDCA324434FFA506CF7DC4E51DB7935)
        • schtasks.exe (PID: 2556 cmdline: 'C:\Windows\system32\schtasks.exe' /Create /RU 'NT AUTHORITY\SYSTEM' /tn vevmwwj /tr 'regsvr32.exe -s 'C:\Users\user\Dr
ezd.red' /SC ONCE /Z /ST 21:23 /ET 21:35 MD5: 2003E9B15E1C502B146DAD2E383AC1E3)
    • regsvr32.exe (PID: 2968 cmdline: regsvr32 -silent ..\Drezd1.red MD5: 59BCE9F07985F8A4204F4D6554CFF708)
      • regsvr32.exe (PID: 2528 cmdline: -silent ..\Drezd1.red MD5: 432BE6CF7311062633459EEF6B242FB5)
        • explorer.exe (PID: 236 cmdline: C:\Windows\SysWOW64\explorer.exe MD5: 6DDCA324434FFA506CF7DC4E51DB7935)
    • regsvr32.exe (PID: 804 cmdline: regsvr32 -silent ..\Drezd2.red MD5: 59BCE9F07985F8A4204F4D6554CFF708)
  • regsvr32.exe (PID: 672 cmdline: regsvr32.exe -s 'C:\Users\user\Drezd.red' MD5: 59BCE9F07985F8A4204F4D6554CFF708)
    • regsvr32.exe (PID: 1500 cmdline: -s 'C:\Users\user\Drezd.red' MD5: 432BE6CF7311062633459EEF6B242FB5)
      • explorer.exe (PID: 1308 cmdline: C:\Windows\SysWOW64\explorer.exe MD5: 6DDCA324434FFA506CF7DC4E51DB7935)
        • reg.exe (PID: 1684 cmdline: C:\Windows\system32\reg.exe ADD 'HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths' /f /t REG_DWORD /v 'C:\Progr
amData\Microsoft\Krngrnamoimcp' /d '0' MD5: 9D0B3066FE3D1FD345E86BC7BCCED9E4)
        • reg.exe (PID: 536 cmdline: C:\Windows\system32\reg.exe ADD 'HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths' /f /t REG_DWORD /v 'C:\Users
\user\AppData\Roaming\Microsoft\Waizacawzvcu' /d '0' MD5: 9D0B3066FE3D1FD345E86BC7BCCED9E4)
    • regsvr32.exe (PID: 2072 cmdline: regsvr32.exe -s 'C:\Users\user\Drezd.red' MD5: 59BCE9F07985F8A4204F4D6554CFF708)
      • regsvr32.exe (PID: 2312 cmdline: -s 'C:\Users\user\Drezd.red' MD5: 432BE6CF7311062633459EEF6B242FB5)
  • cleanup

```

Malware Configuration

No configs have been found

Yara Overview

Initial Sample

Source	Rule	Description	Author	Strings
#Qbot downloader.xls	JoeSecurity_HiddenMacro	Yara detected hidden Macro 4.0 in Excel	Joe Security	

Memory Dumps

Source	Rule	Description	Author	Strings
0000000F.00000002.819617621.0000000000080000.00000040.00020000.sdmpr	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
00000005.00000002.544922565.0000000010001000.00000040.00020000.sdmpr	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
00000009.00000002.554724800.0000000010001000.00000040.00020000.sdmpr	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
0000000D.00000002.559785788.0000000000270000.00000004.00000001.sdmpr	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
00000009.00000002.551759186.0000000000190000.00000004.00000001.sdmpr	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
Click to see the 4 entries				

Unpacked PEs

Source	Rule	Description	Author	Strings
9.2.regsvr32.exe.190000.0.raw.unpack	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
15.2.explorer.exe.80000.0.raw.unpack	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
13.2.regsvr32.exe.270000.0.unpack	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
13.2.regsvr32.exe.270000.0.raw.unpack	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
5.2.regsvr32.exe.10000000.8.unpack	JoeSecurity_Qbot_1	Yara detected Qbot	Joe Security	
Click to see the 10 entries				

Sigma Overview

System Summary:



Sigma detected: Microsoft Office Product Spawning Windows Shell

Sigma detected: Regsvr32 Command Line Without DLL

Persistence and Installation Behavior:



Sigma detected: Schedule system process

Jbx Signature Overview

Click to jump to signature section

AV Detection:



Machine Learning detection for dropped file

Software Vulnerabilities:



Document exploit detected (drops PE files)

Document exploit detected (process start blacklist hit)

Document exploit detected (UrlDownloadToFile)

System Summary:



Office document tries to convince victim to disable security protection (e.g. to enable ActiveX or Macros)

Office process drops PE file

PE file has nameless sections

Persistence and Installation Behavior:



Uses cmd line tools excessively to alter registry or file data

Boot Survival:



Drops PE files to the user root directory

Uses schtasks.exe or at.exe to add and modify task schedules

Hooking and other Techniques for Hiding and Protection:



Overwrites code with unconditional jumps - possibly settings hooks in foreign process

HIPS / PFW / Operating System Protection Evasion:



Maps a DLL or memory area into another process

Writes to foreign memory regions

Allocates memory in foreign processes

Injects code into the Windows Explorer (explorer.exe)

Yara detected hidden Macro 4.0 in Excel

Stealing of Sensitive Information:



Yara detected Qbot

Remote Access Functionality:

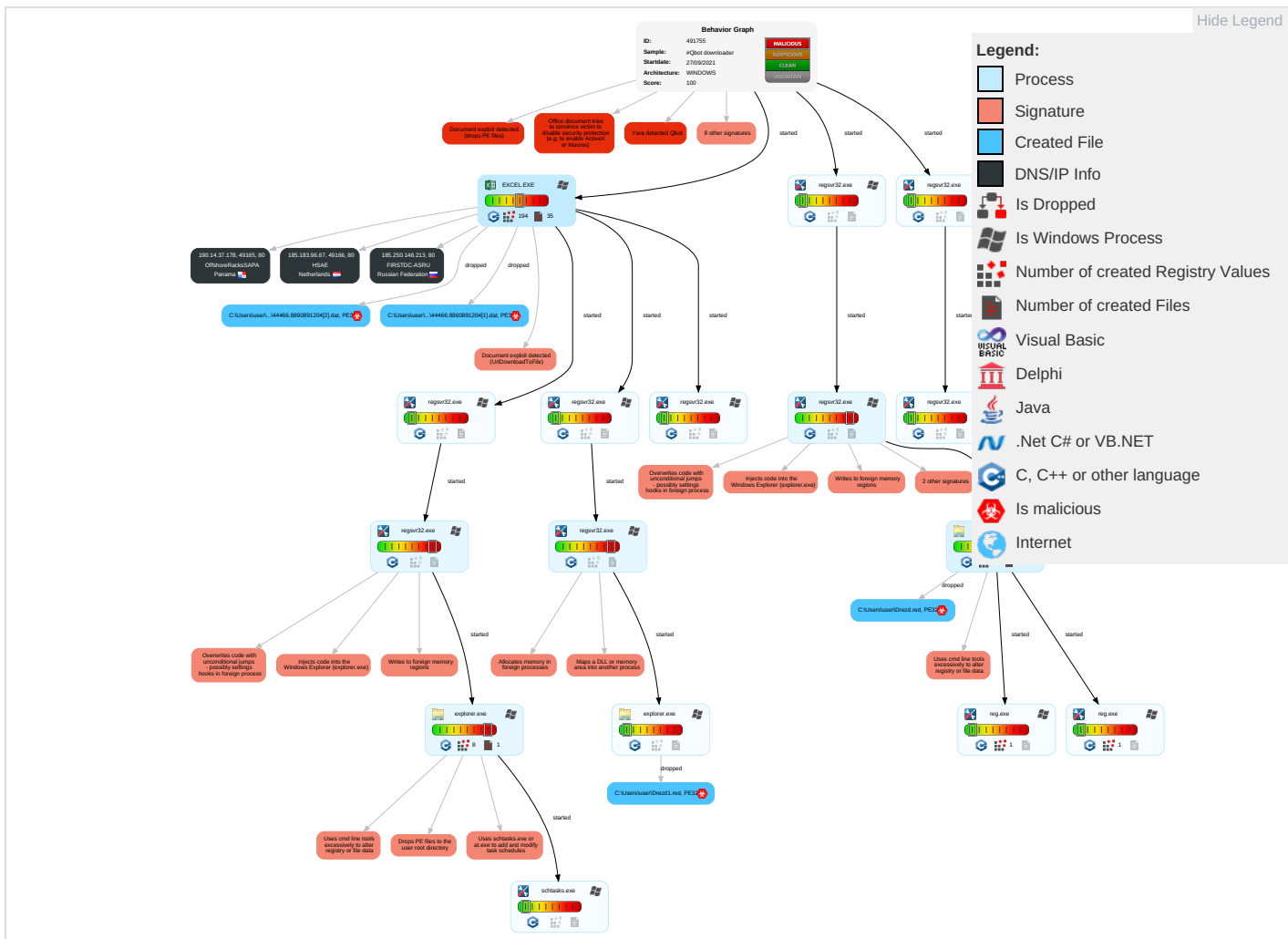


Yara detected Qbot

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	Command and Scripting Interpreter 1 1	Windows Service 3	Windows Service 3	Masquerading 1 2 1	Credential API Hooking 1	System Time Discovery 1	Remote Services	Credential API Hooking 1	Exfiltration Over Other Network Medium	Encrypted Channel 1	Eavesdropping, Insecure Network Communication
Default Accounts	Scheduled Task/Job 1	Scheduled Task/Job 1	Process Injection 4 1 3	Disable or Modify Tools 1	LSASS Memory	Security Software Discovery 1	Remote Desktop Protocol	Archive Collected Data 1	Exfiltration Over Bluetooth	Ingress Tool Transfer 1 2	Exploitation, Redirected Calls/Sessions
Domain Accounts	Scripting 2	Logon Script (Windows)	Scheduled Task/Job 1	Modify Registry 1	Security Account Manager	Virtualization/Sandbox Evasion 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Non-Application Layer Protocol 1	Exploitation, Track and Location
Local Accounts	Service Execution 2	Logon Script (Mac)	Logon Script (Mac)	Virtualization/Sandbox Evasion 1	NTDS	Process Discovery 3	Distributed Component Object Model	Input Capture	Scheduled Transfer	Application Layer Protocol 2 1	SIM Card Swap
Cloud Accounts	Native API 1	Network Logon Script	Network Logon Script	Process Injection 4 1 3	LSA Secrets	File and Directory Discovery 2	SSH	Keylogging	Data Transfer Size Limits	Fallback Channels	Manipulation, Device Communication
Replication Through Removable Media	Exploitation for Client Execution 3 2	Rc.common	Rc.common	Scripting 2	Cached Domain Credentials	System Information Discovery 1 5	VNC	GUI Input Capture	Exfiltration Over C2 Channel	Multiband Communication	Jamming, Denial of Service
External Remote Services	Scheduled Task	Startup Items	Startup Items	Obfuscated Files or Information 1	DCSync	Network Sniffing	Windows Remote Management	Web Portal Capture	Exfiltration Over Alternative Protocol	Commonly Used Port	Rogue Access

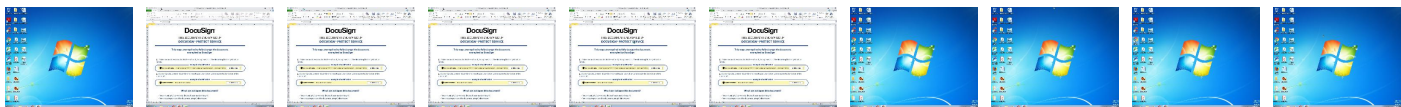
Behavior Graph

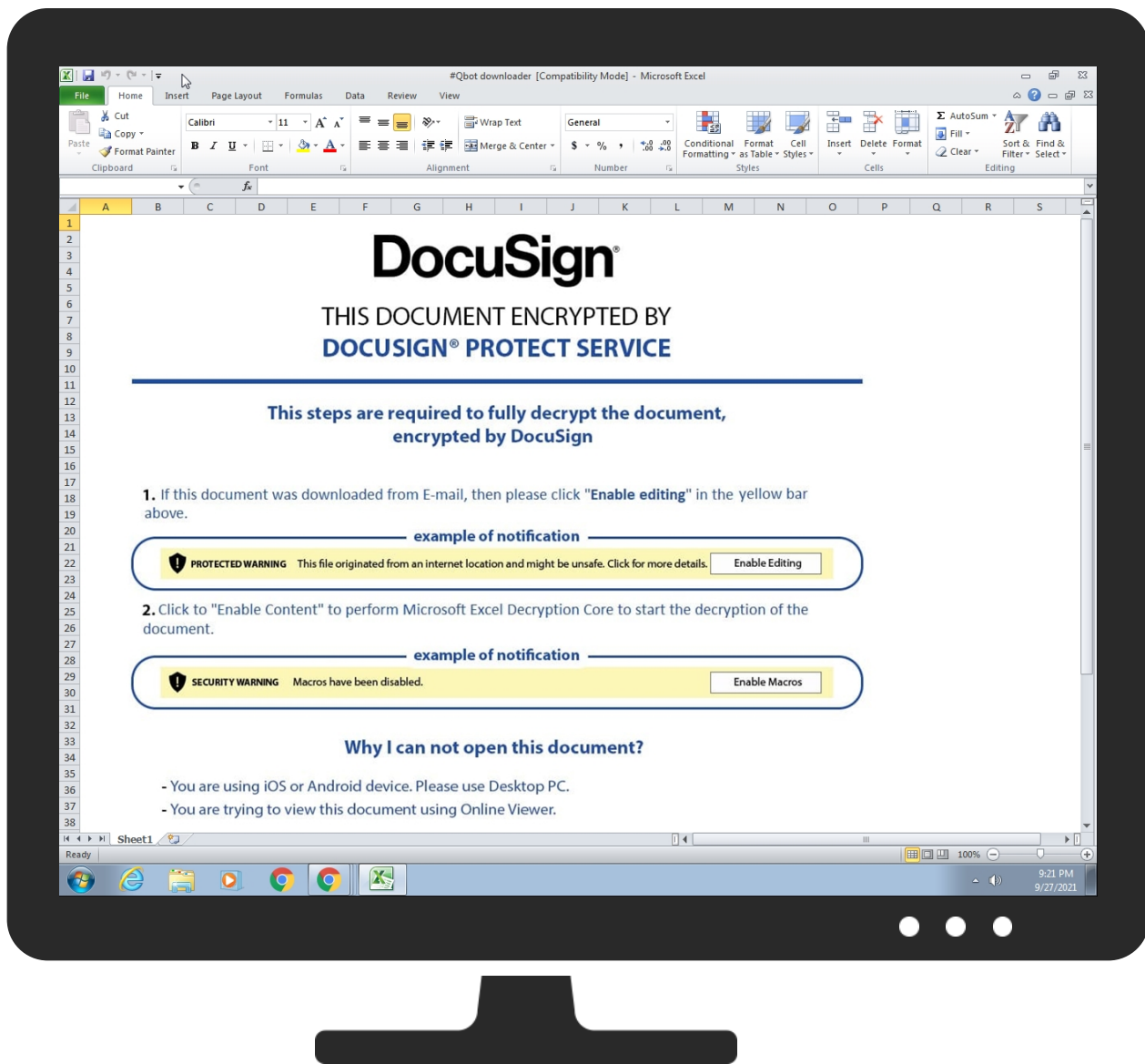


Screenshots

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
#Qbot downloader.xls	9%	ReversingLabs	Script.Trojan.Heuristic	

Dropped Files

Source	Detection	Scanner	Label	Link
C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\44466.8890891204[2].dat	100%	Joe Sandbox ML		
C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\44466.8890891204[1].dat	100%	Joe Sandbox ML		
C:\Users\user\Drezd.red	9%	ReversingLabs		
C:\Users\user\Drezd1.red	9%	ReversingLabs		

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://185.183.96.67/44466.8890891204.dat	0%	Avira URL Cloud	safe	
http://190.14.37.178/44466.8890891204.dat	0%	Avira URL Cloud	safe	
http://servername/isapibackend.dll	0%	Avira URL Cloud	safe	

Domains and IPs

Contacted Domains

No contacted domains info

Contacted URLs

Name	Malicious	Antivirus Detection	Reputation
http://185.183.96.67/44466.8890891204.dat	false	Avira URL Cloud: safe	unknown
http://190.14.37.178/44466.8890891204.dat	false	Avira URL Cloud: safe	unknown

URLs from Memory and Binaries

Contacted IPs

Public

IP	Domain	Country	Flag	ASN	ASN Name	Malicious
185.183.96.67	unknown	Netherlands		60117	HSAE	false
190.14.37.178	unknown	Panama		52469	OffshoreRacksSAPA	false
185.250.148.213	unknown	Russian Federation		48430	FIRSTDC-ASRU	false

General Information

Joe Sandbox Version:	33.0.0 White Diamond
Analysis ID:	491755
Start date:	27.09.2021
Start time:	21:18:40
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 13m 10s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	#Qbot downloader (renamed file extension from none to xls)
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:	23
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.winXLS@29/9@0/3
EGA Information:	Failed

HDC Information:	- Successful, ratio: 23.8% (good quality ratio 22.2%) - Quality average: 75.4% - Quality standard deviation: 28.7%
HCA Information:	- Successful, ratio: 85% - Number of executed functions: 0 - Number of non-executed functions: 0
Cookbook Comments:	- Adjust boot time - Enable AMSI - Changed system and user locale, location and keyboard layout to English - United States - 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
21:21:20	API Interceptor	46x Sleep call for process: regsvr32.exe modified
21:21:22	API Interceptor	882x Sleep call for process: explorer.exe modified
21:21:25	API Interceptor	2x Sleep call for process: schtasks.exe modified
21:21:26	Task Scheduler	Run new task: vevmwwj path: regsvr32.exe s>-s "C:\Users\user\Drezd.red"

Joe Sandbox View / Context

IPs

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
185.183.96.67	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	185.183.96.67/444667516903935.dat
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	185.183.96.67/444667022844907.dat
190.14.37.178	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	190.14.37.178/444667516903935.dat
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	190.14.37.178/444667022844907.dat
185.250.148.213	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	185.250.148.213/444667516903935.dat
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	185.250.148.213/444667022844907.dat

Domains

No context

ASN

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
HSAE	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	185.183.96.67
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	185.183.96.67
	KHI13mrm4c.exe	Get hash	malicious	Browse	185.183.98.2
	Copy of Payment-228607772-09222021.xls	Get hash	malicious	Browse	185.82.202.248

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
	NJS4hNBeUR.exe	Get hash	malicious	Browse	185.198.57.68
	rQoEGMGufv.exe	Get hash	malicious	Browse	185.45.192.203
	5ya8R7LxXL.exe	Get hash	malicious	Browse	185.45.192.203
	Uz2eSldsZe.exe	Get hash	malicious	Browse	185.45.192.203
	SWIFT_COPY.htm	Get hash	malicious	Browse	194.36.191.196
	3hTS09wZ7G.exe	Get hash	malicious	Browse	185.183.96.3
	040ba58b824e36fc9117c1e3c8b651d9e4dc3fe12b535.exe	Get hash	malicious	Browse	185.183.96.3
	OC2Z0JbqfA.exe	Get hash	malicious	Browse	185.183.96.3
	89o9iHBGiB.exe	Get hash	malicious	Browse	185.183.96.3
	DWVByMCYL8.exe	Get hash	malicious	Browse	185.183.96.3
	DUpgpAnHkq.exe	Get hash	malicious	Browse	185.183.96.3
	7EAz8cQ49v.exe	Get hash	malicious	Browse	185.183.96.3
	f9aoawyl4M.exe	Get hash	malicious	Browse	185.183.96.3
	7da1ac7cd7a61715807d49e8c79b054ba302b3988ba19.exe	Get hash	malicious	Browse	185.183.96.3
	38fd2cb3083f33b50606b7821453769103bde24335734.exe	Get hash	malicious	Browse	185.183.96.3
OffshoreRacksSAPA	JSYInjvdmM.exe	Get hash	malicious	Browse	185.183.96.3
	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	190.14.37.178
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	190.14.37.178
	Claim-838392655-09242021.xls	Get hash	malicious	Browse	190.14.37.173
	claim.xls	Get hash	malicious	Browse	190.14.37.173
	Claim-1368769328-09242021.xls	Get hash	malicious	Browse	190.14.37.173
	Claim-1763045001-09242021.xls	Get hash	malicious	Browse	190.14.37.173
	Claim-680517779-09242021.xls	Get hash	malicious	Browse	190.14.37.173
	Payment-687700136-09212021.xls	Get hash	malicious	Browse	190.14.37.232
	Permission-851469163-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-851469163-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-830724601-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-830724601-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-40776837-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-40776837-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-1984690372-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-1532161794-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-1984690372-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-1532161794-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-414467145-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3
	Permission-414467145-06252021.xlsm	Get hash	malicious	Browse	190.14.37.3

JA3 Fingerprints

No context

Dropped Files

Match	Associated Sample Name / URL	SHA 256	Detection	Link	Context
C:\Users\user\Drezd1.red	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	
C:\Users\user\Drezd.red	Compensation-2308017-09272021.xls	Get hash	malicious	Browse	
	Compensation-1730406737-09272021.xls	Get hash	malicious	Browse	

Created / dropped Files

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\44466.8890891204[1].dat					
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE				
File Type:	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows				
Category:	dropped				
Size (bytes):	387072				
Entropy (8bit):	4.528526750288275				
Encrypted:	false				
SSDEEP:	3072:Do6vBnby4Yx0XJFFzPQ0MslzERfQB24hLxBVi/b/9+PdpiWC35ol/uwftuT2b2Mz:vs6Xppq0H3Jhds/9+qC/zfTfPL9				
MD5:	797AE4AC5491942A9D84811499580F49				
SHA1:	AD90C5CB1343C76FD8D3EA5768D59E2DDFE8141E				
SHA-256:	6A8A283DAEF75106464755B91467B81AD9320BBAE30F167F232BF05891CCF60C				

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\44466.8890891204[1].dat	
SHA-512:	6EE2235E11D8AEA1BDB3ECF2CEF31265385030CA36B04A454CB589FB8712F9FF91FD22635A18122B8CCA756D9144B1D5A2171ED20A789408F46E2D96B386106F
Malicious:	true
Antivirus:	Antivirus: Joe Sandbox ML, Detection: 100%
Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....PE..L...;a.....!.....p.....text.....`edata.p.....@..@.data....0.....@...data...T...P.....\$.....@....rdatat.H.....@....rsrc.....@..@.....P...0...P.....P...P...H.....P... ...P.....

C:\Users\user\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\ZAE7RW1P\44466.8890891204[2].dat	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
Category:	dropped
Size (bytes):	387072
Entropy (8bit):	4.528526750288275
Encrypted:	false
SSDEEP:	3072:Do6vBnby4Yx0XjFFzPQ0MslzERfQB24hLxBVi/b/9+PdpiWC35ol/uwfTuT2b2Mz:vs6Xpq0H3Jhds/9+qC/zfTPL9
MD5:	797AE4AC5491942A9D84811499580F49
SHA1:	AD90C5CB1343C76FD8D3EA5768D59E2DDFE8141E
SHA-256:	6A8A283DAEF75106464755B91467B81AD9320BBAE30F167F232BF05891CCF60C
SHA-512:	6EE2235E11D8AEA1BDB3ECF2CEF31265385030CA36B04A454CB589FB8712F9FF91FD22635A18122B8CCA756D9144B1D5A2171ED20A789408F46E2D96B386106F
Malicious:	true
Antivirus:	Antivirus: Joe Sandbox ML, Detection: 100%
Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....PE..L...;a.....!.....p.....text.....`edata.p.....@..@.data....0.....@...data...T...P.....\$.....@....rdatat.H.....@....rsrc.....@..@.....P...0...P.....P...P...H.....P... ...P.....

C:\Users\user\AppData\Local\Temp\VBELMSForms.exe	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	data
Category:	dropped
Size (bytes):	162688
Entropy (8bit):	4.254461970813892
Encrypted:	false
SSDEEP:	1536:C6zL3FNSc8SetKB96vQVCBumVMOej6mXmYarrJQcd1FaLcm48s:CSJNSc83tKBavQVCgOtmXmLpLm4l
MD5:	163694AA52A16C8F6CDCEE785FA7D6C5
SHA1:	74F10E9059BBEAB4CA1C952EA3E5E8ECB8070C99
SHA-256:	5AE0ECBF654451CE81B2129EA9B3B412F79A7B8EF32A4A46403C461A408908A3
SHA-512:	AD072A625A3CD8F3A0AD99A96406705B1D379F29FB6957E9A89CF3A5849F1BF443C36B3F9ADF07FE6D0FE3A22D75B58269B31368998CD3BAA33AF8CCA2E31647
Malicious:	false
Preview:	MSFT.....Q.....#.....\$.....d.....X.....L.....x.....@.....l.....4.....`.....(.....T.....H.....t.....<..... ..h.....0.....\.....\$.....P.....D.....p.....8.....d.....X.....L.....x.....@.....l.....4!.....!.....".....".....(#...#...#...T\$...\$...%...%...%..H&.. .&..'..t'..<((...(..)h)...).0*...*...*\+...+...\$.....P-...-.....D/.../...0..p0...0.81...1...2..d2...2...3...3..X4...4..5...5...L6...6...7..x7...7..@8.....8..... \$.....x..xG.....T.....&!.....

C:\Users\user\AppData\Local\Temp\VBELRefEdit.exe	
Process:	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE
File Type:	data
Category:	dropped
Size (bytes):	15676
Entropy (8bit):	4.534154763699487
Encrypted:	false
SSDEEP:	192:wx211DxzCOiHIT6P20eChgZjTdZ3HJV8L117EMBkDXrq9LwGGLVbkLde:wQxesT20lhez3waE5D7qxIxxe
MD5:	FD7E7015E3A393E7881EE7AD51B83485
SHA1:	FAD9FAC2F9412082A04D565CC9729D43218D7239
SHA-256:	A6417497FC703304FC4D9B820F6C73A8754CFF4CC249F40575EC7B69DC9B0E45
SHA-512:	680E2270BFA83165B5F8529C4ACB747A671C78DC78112156525DA5DFA0403D1DFC2A161971AF61D5FED213E988FE38296EAAF5A03B54AE17DD363F8ED4E760C
Malicious:	false

C:\Users\user\AppData\Local\Temp\VB\RefEdit.exe

Preview:	MSFT.....A.....1.....d.....\.....H...4.....0.....x.....x.....\$".....P.....\$".....0...P..... ...0.....%".....H...".....H...(.@.....P.....0.....`.....p...X..... ...uG.....E.....F.....B.....`d....."E.....F.....0.....F.....E.....`M.....CPf.....0.=.....01...)....w...<Wl.....\1Y.....k...U....."..... . .K..a...
----------	--

C:\Users\user\Drezd.red

Process:	C:\Windows\SysWOW64\explorer.exe
File Type:	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
Category:	dropped
Size (bytes):	387072
Entropy (8bit):	1.6961804656486577
Encrypted:	false
SSDEEP:	1536:92VcC6MtqWgV3vAFNJ3JXS9n5SYCR44u029R+J:XC6MtAAFNJ5XC5SYCi02r+J
MD5:	B19B0AF9A01DD936D091C291B19696C8
SHA1:	862ED0B9586729F2633670CCD7D075D7693908E1
SHA-256:	17D261EACA2629EF9907D0C00FB2271201E466796F06DCB7232900D711C29330
SHA-512:	9FOCE65AFA00919797A3A75308CF49366D5DCA0C17EA3CFAB70A9E9244E0D5AB6DEC21A3A46C2C609159E0CBF91AF4F10E6A36F3FB7310A5C2B062249AB43DB4
Malicious:	true
Antivirus:	Antivirus: ReversingLabs, Detection: 9%
Joe Sandbox View:	- Filename: Compensation-2308017-09272021.xls, Detection: malicious, Browse - Filename: Compensation-1730406737-09272021.xls, Detection: malicious, Browse
Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....PE..L....;a.....!p..... . .text.....`edata.p.....@..@.data....0.....@...data...T...P.....\$.....@....rdatat.H.....@....rsrc.....@...@.....P...0...P.....P...P...H.....P... ...P.....

C:\Users\user\Drezd1.red

Process:	C:\Windows\SysWOW64\explorer.exe
File Type:	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
Category:	dropped
Size (bytes):	387072
Entropy (8bit):	1.6961804656486577
Encrypted:	false
SSDEEP:	1536:92VcC6MtqWgV3vAFNJ3JXS9n5SYCR44u029R+J:XC6MtAAFNJ5XC5SYCi02r+J
MD5:	B19B0AF9A01DD936D091C291B19696C8
SHA1:	862ED0B9586729F2633670CCD7D075D7693908E1
SHA-256:	17D261EACA2629EF9907D0C00FB2271201E466796F06DCB7232900D711C29330
SHA-512:	9FOCE65AFA00919797A3A75308CF49366D5DCA0C17EA3CFAB70A9E9244E0D5AB6DEC21A3A46C2C609159E0CBF91AF4F10E6A36F3FB7310A5C2B062249AB43DB4
Malicious:	true
Antivirus:	Antivirus: ReversingLabs, Detection: 9%
Joe Sandbox View:	- Filename: Compensation-2308017-09272021.xls, Detection: malicious, Browse - Filename: Compensation-1730406737-09272021.xls, Detection: malicious, Browse
Preview:	MZ.....@.....!..L!This program cannot be run in DOS mode...\$.....PE..L....;a.....!p..... . .text.....`edata.p.....@..@.data....0.....@...data...T...P.....\$.....@....rdatat.H.....@....rsrc.....@...@.....P...0...P.....P...P...H.....P... ...P.....

Static File Info

General	
File type:	Composite Document File V2 Document, Little Endian, Os: Windows, Version 10.0, Code page: 1251, Author: Test, Last Saved By: Test, Name of Creating Application: Microsoft Excel, Create Time/Date: Fri Jun 5 19:17:20 2015, Last Saved Time/Date: Mon Sep 27 10:38:52 2021, Security: 0
Entropy (8bit):	7.131912306364678
TrID:	- Microsoft Excel sheet (30009/1) 47.99% - Microsoft Excel sheet (alternate) (24509/1) 39.20% - Generic OLE2 / Multistream Compound File (8008/1) 12.81%

General

File name:	#Qbot downloader.xls
File size:	129024
MD5:	b4b3a2223765ac84c9b1b05db7c6503
SHA1:	57bc35cb0c7a9ac6e7fcb5dea5c211fe5eda5fe0
SHA256:	3982ae3e61a6ba86d61bd8f017f6238cc9afeb08b785010d686716e8415b6a36
SHA512:	52b33c60f4f3b1043915fc595aaf1684fe558d82c778a8cb078916daa565f36f12d5fe023ea7611c39f0e2c48bb241eb481b02b2160ba4e97f402c9b75cae500
SSDEEP:	3072:Cik3hOdsylKlgxopeiBNhZFGzE+cL2kdAnc6YehWfG+tUHKGDbpmsiilBti2JtqV:vk3hOdsylKlgxopeiBNhZF+E+W2kdAnE
File Content Preview:	>.....b.....

File Icon

	
Icon Hash:	e4eea286a4b4bcb4

Static OLE Info

General

Document Type:	OLE
Number of OLE Files:	1

OLE File "#Qbot downloader.xls"

Indicators

Has Summary Info:	True
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:	
Flash Objects Count:	
Contains VBA Macros:	True

Summary

Code Page:	1251
Author:	Test
Last Saved By:	Test
Create Time:	2015-06-05 18:17:20
Last Saved Time:	2021-09-27 09:38:52
Creating Application:	Microsoft Excel
Security:	0

Document Summary

Document Code Page:	1251
Thumbnail Scaling Desired:	False
Company:	
Contains Dirty Links:	False
Shared Document:	False
Changed Hyperlinks:	False
Application Version:	1048576

Streams with VBA

Streams

Network Behavior

Network Port Distribution

TCP Packets

HTTP Request Dependency Graph

HTTP Packets

Session ID	Source IP	Source Port	Destination IP	Destination Port	Process
0	192.168.2.22	49165	190.14.37.178	80	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE

[illegible]

Session ID	Source IP	Source Port	Destination IP	Destination Port	Process
1	192.168.2.22	49166	185.183.96.67	80	C:\Program Files\Microsoft Office\Office14\EXCEL.EXE

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:	0x13f290000
File size:	28253536 bytes
MD5 hash:	D53B85E21886D2AF9815C377537BCAC3
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	moderate

File Activities

Show Windows behavior

File Created

File Deleted

File Moved

File Written

Registry Activities

Show Windows behavior

Key Created

Key Value Created

Analysis Process: regsvr32.exe PID: 2516 Parent PID: 2812

General

Start time:	21:21:20
Start date:	27/09/2021
Path:	C:\Windows\System32\regsvr32.exe
Wow64 process (32bit):	false
Commandline:	regsvr32 -silent ..\Drezd.red
Imagebase:	0xff7b0000
File size:	19456 bytes
MD5 hash:	59BCE9F07985F8A4204F4D6554CFF708
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

File Read

Analysis Process: regsvr32.exe PID: 2852 Parent PID: 2516

General

Start time:	21:21:20
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\regsvr32.exe
Wow64 process (32bit):	true
Commandline:	-silent ..\Drezd.red

Imagebase:	0x770000
File size:	14848 bytes
MD5 hash:	432BE6CF7311062633459EEF6B242FB5
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Yara matches:	- Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 00000005.00000002.544922565.0000000010001000.00000040.00020000.sdmp, Author: Joe Security - Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 00000005.00000002.543038317.0000000000440000.00000004.00000001.sdmp, Author: Joe Security
Reputation:	moderate

[File Activities](#)

Show Windows behavior

Analysis Process: explorer.exe PID: 1172 Parent PID: 2852

General	
Start time:	21:21:22
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\explorer.exe
Wow64 process (32bit):	true
Commandline:	C:\Windows\SysWOW64\explorer.exe
Imagebase:	0xeb0000
File size:	2972672 bytes
MD5 hash:	6DDCA324434FFA506CF7DC4E51DB7935
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Yara matches:	Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 00000006.00000002.819616728.0000000000080000.00000040.00020000.sdmp, Author: Joe Security
Reputation:	high

[File Activities](#)

Show Windows behavior

[File Created](#)

[File Written](#)

[File Read](#)

[Registry Activities](#)

Show Windows behavior

[Key Created](#)

[Key Value Created](#)

[Key Value Modified](#)

Analysis Process: regsvr32.exe PID: 2968 Parent PID: 2812

General	
Start time:	21:21:23
Start date:	27/09/2021
Path:	C:\Windows\System32\regsvr32.exe
Wow64 process (32bit):	false

Commandline:	regsvr32 -silent ..\Drezd1.red
Imagebase:	0xff7b0000
File size:	19456 bytes
MD5 hash:	59BCE9F07985F8A4204F4D6554CFF708
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

File Read

Analysis Process: schtasks.exe PID: 2556 Parent PID: 1172

General	
Start time:	21:21:24
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\schtasks.exe
Wow64 process (32bit):	true
Commandline:	'C:\Windows\system32\schtasks.exe' /Create /RU 'NT AUTHORITY\SYSTEM' /tn vevmwwj /tr 'regsvr32.exe -s \"C:\Users\user\Drezd.red\" /SC ONCE /Z /ST 21:23 /ET 21:35
Imagebase:	0x980000
File size:	179712 bytes
MD5 hash:	2003E9B15E1C502B146DAD2E383AC1E3
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

Analysis Process: regsvr32.exe PID: 2528 Parent PID: 2968

General	
Start time:	21:21:24
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\regsvr32.exe
Wow64 process (32bit):	true
Commandline:	-silent ..\Drezd1.red
Imagebase:	0x5f0000
File size:	14848 bytes
MD5 hash:	432BE6CF7311062633459EEF6B242FB5
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Yara matches:	- Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 00000009.00000002.554724800.0000000010001000.00000040.00020000.sdmp, Author: Joe Security - Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 00000009.00000002.551759186.0000000000190000.00000004.00000001.sdmp, Author: Joe Security
Reputation:	moderate

File Activities

Show Windows behavior

Analysis Process: explorer.exe PID: 236 Parent PID: 2528

General

Start time:	21:21:26
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\explorer.exe
Wow64 process (32bit):	true
Commandline:	C:\Windows\SysWOW64\explorer.exe
Imagebase:	0xeb0000
File size:	2972672 bytes
MD5 hash:	6DDCA324434FFA506CF7DC4E51DB7935
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Yara matches:	Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 0000000B.00000002.555668005.0000000000080000.00000040.00020000.sdmp, Author: Joe Security
Reputation:	high

File Activities

Show Windows behavior

File Written

File Read

Analysis Process: regsvr32.exe PID: 672 Parent PID: 1672

General

Start time:	21:21:26
Start date:	27/09/2021
Path:	C:\Windows\System32\regsvr32.exe
Wow64 process (32bit):	false
Commandline:	regsvr32.exe -s 'C:\Users\user\Drezd.red'
Imagebase:	0xff7b0000
File size:	19456 bytes
MD5 hash:	59BCE9F07985F8A4204F4D6554CFF708
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

File Activities

Show Windows behavior

File Read

Analysis Process: regsvr32.exe PID: 1500 Parent PID: 672

General

Start time:	21:21:27
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\regsvr32.exe
Wow64 process (32bit):	true
Commandline:	-s 'C:\Users\user\Drezd.red'
Imagebase:	0x5f0000
File size:	14848 bytes
MD5 hash:	432BE6CF7311062633459EEF6B242FB5
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language

Yara matches:	- Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 0000000D.00000002.559785788.0000000000270000.00000004.00000001.sdmp, Author: Joe Security - Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 0000000D.00000002.561553251.0000000010001000.00000040.00020000.sdmp, Author: Joe Security
Reputation:	moderate

[File Activities](#)

Show Windows behavior

Analysis Process: regsvr32.exe PID: 804 Parent PID: 2812

General	
Start time:	21:21:28
Start date:	27/09/2021
Path:	C:\Windows\System32\regsvr32.exe
Wow64 process (32bit):	false
Commandline:	regsvr32 -silent ..\Drezd2.red
Imagebase:	0xff7b0000
File size:	19456 bytes
MD5 hash:	59BCE9F07985F8A4204F4D6554CFF708
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Reputation:	high

Analysis Process: explorer.exe PID: 1308 Parent PID: 1500

General	
Start time:	21:21:29
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\explorer.exe
Wow64 process (32bit):	true
Commandline:	C:\Windows\SysWOW64\explorer.exe
Imagebase:	0xeb0000
File size:	2972672 bytes
MD5 hash:	6DDCA324434FFA506CF7DC4E51DB7935
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language
Yara matches:	Rule: JoeSecurity_Qbot_1, Description: Yara detected Qbot, Source: 0000000F.00000002.819617621.0000000000080000.00000040.00020000.sdmp, Author: Joe Security

[File Activities](#)

Show Windows behavior

[File Created](#)

[File Written](#)

[File Read](#)

[Registry Activities](#)

Show Windows behavior

[Key Created](#)

[Key Value Created](#)

Key Value Modified

Analysis Process: reg.exe PID: 1684 Parent PID: 1308

General

Start time:	21:21:31
Start date:	27/09/2021
Path:	C:\Windows\System32\reg.exe
Wow64 process (32bit):	false
Commandline:	C:\Windows\system32\reg.exe ADD 'HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths' /f /t REG_DWORD /v 'C:\ProgramData\Microsoft\Krngrnamoimcp' /d '0'
Imagebase:	0xffca0000
File size:	74752 bytes
MD5 hash:	9D0B3066FE3D1FD345E86BC7BCCED9E4
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language

Registry Activities

[Show Windows behavior](#)

Key Value Created

Analysis Process: reg.exe PID: 536 Parent PID: 1308

General

Start time:	21:21:33
Start date:	27/09/2021
Path:	C:\Windows\System32\reg.exe
Wow64 process (32bit):	false
Commandline:	C:\Windows\system32\reg.exe ADD 'HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths' /f /t REG_DWORD /v 'C:\Users\user\AppData\Roaming\Microsoft\Waizacawzvcu' /d '0'
Imagebase:	0xff060000
File size:	74752 bytes
MD5 hash:	9D0B3066FE3D1FD345E86BC7BCCED9E4
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language

Registry Activities

[Show Windows behavior](#)

Key Value Created

Analysis Process: regsvr32.exe PID: 2072 Parent PID: 1672

General

Start time:	21:23:00
Start date:	27/09/2021
Path:	C:\Windows\System32\regsvr32.exe
Wow64 process (32bit):	false
Commandline:	regsvr32.exe -s 'C:\Users\user\Drezd.red'
Imagebase:	0xff6c0000
File size:	19456 bytes
MD5 hash:	59BCE9F07985F8A4204F4D6554CFF708

Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language

File Activities

Show Windows behavior

File Read

Analysis Process: regsvr32.exe PID: 2312 Parent PID: 2072

General

Start time:	21:23:00
Start date:	27/09/2021
Path:	C:\Windows\SysWOW64\regsvr32.exe
Wow64 process (32bit):	true
Commandline:	-s 'C:\Users\user\Drezd.red'
Imagebase:	0x7a0000
File size:	14848 bytes
MD5 hash:	432BE6CF7311062633459EEF6B242FB5
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	C, C++ or other language

Disassembly

Code Analysis