# Invoke-Mimikatz (PowerSploit)

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	Tool	Ova	rview
- 1	100	LOVE	rview

#### Category

Password and Hash Dump

#### Description

Loads Mimikatz into memory and starts it up.

#### Example of Presumed Tool Use During an Attack

This tool is used to acquire the user's password and use it for unauthorized login.

## - Tool Operation Overview

ltem	Source Host	Destination Host
os	Windows	
Belonging to Domain	Not required	
Rights	Administrator	
<b>Communication Protocol</b>	5985/tcp (HTTP), 5986/tcp (HTTPS)	
Service	Windows Remo	te Management

### - Information Acquired from Log

#### **Standard Settings**

- Source host
  - Execution history (Prefetch)
  - Details of the script/command executed (Windows 10 only. They are recorded in "Microsoft-Windows-PowerShell/Operational" and C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost\_history.txt)

### Additional Settings

- Source host
  - Execution history (audit policy, Sysmon)
  - o A record of communication using WinRM (5985/tcp) (audit policy, Sysmon)
  - Details of the script/command executed (when Windows Management Framework 5.0 is installed on Windows 7. They are recorded in "Microsoft-Windows-PowerShell/Operational" and C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost\_history.txt)
- Destination Host
  - A record of communication using WinRM (5985/tcp) (audit policy, Sysmon)

### - Evidence That Can Be Confirmed When Execution is Successful

• Source Host: The Event ID: 4104 is recorded in the event log "Microsoft-Windows-PowerShell/Operational", and its contents include a Invoke-Mimikatz script (Windows 10, or when Windows Management Framework 5.0 is installed on Windows 7).

#### - Main Information Recorded at Execution

## - Source Host

#### **Event log**

#	Log	Event ID	Task Category	Event Details
1	Microsoft-Windows- Sysmon/Operational	1	Process Create (rule: ProcessCreate)	Process Create.  CommandLine: Command line of the execution command ("C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe")  UtcTime: Process execution date and time (UTC) ProcessGuid/ProcessId: Process ID  Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  User: Execute as user
2	Microsoft-Windows- WinRM/Operational	6	WSMan Session Initialize	Creating WSMan Session. The connect string is [Connect String].  • Connect String: Host name (source host)
3	Microsoft-Windows- PowerShell/Operational	4104	Execute a Remote Command.	Creating Scriptblock text.      Message: The content of the script executed. The content of the executed PowerShell script is recorded as is.
4	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp) Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) Sourcelp/SourceHostname/SourcePort: Source IP address/Host name/Port number (source host) DestinationIp/DestinationHostname/DestinationPort: Destination IP address/Host name/Port number (destination port: 5985)

### **USN** journal

#	File Name	Process
1	ConsoleHost_history.txt	CLOSE+DATA_EXTEND

## UserAssist

#	Registry	Data
1	HKEY_USERS\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\UserAssist\{CEBFF5CD-ACE2-4F4F-9178-9926F41749EA}\Count\{1NP14R77-02R7-4R5Q-O744-2RO1NR5198O7}\JvaqbjfCbjreFuryy\i1.0\cbjrefuryy.rkr	Date and time of the initial execution, Total number of executions

#### MFT

Path	Header Flag	Validity
[Drive Name]:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_history.txt	FILE	ALLOCATED

### Prefetch

• C:\Windows\Prefetch\POWERSHELL.EXE-[RANDOM].pf

## - Destination Host

### **Event log**

#	Log	Event ID	Task Category Fvent Details	
1	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp) Image: Path to the executable file (System) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) SourceIp/SourceHostname/SourcePort: Source IP address/Host name/Port number (destination port: 5985) DestinationIp/DestinationHostname/DestinationPort: Destination IP address/Host name/Port number (source host)
2	Microsoft-Windows- Sysmon/Operational	1	Process Create (rule: ProcessCreate)	Process Create.  ParentImage: Executable file of the parent process (C:\Windows\System32\svchost.exe)  CommandLine: Command line of the execution command (C:\Windows\system32\wbem\wmiprvse.exe -secured -Embedding)

				<ul> <li>ParentCommandLine: Command line of the parent process         (C:\Windows\system32\svchost.exe -k DcomLaunch)</li> <li>UtcTime: Process execution date and time (UTC)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>Image: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)</li> </ul>
3	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (CreateShell)

#### Prefetch

 $\bullet \quad \hbox{C:}\\ \label{lem:condition} C:\\ \label{lem:condition} C:\\ \label{lem:condition} Prefetch\\ \label{lem:condition} WSMPROVHOST.\\ \mbox{EXE-[RANDOM].pf}$ 

# **Details: Source Host**

### - USN Journal

#	File Name	Process	Attribute
	POWERSHELL.EXE- [RANDOM].pf	FILE_CREATE	archive
	POWERSHELL.EXE- [RANDOM].pf	FILE_CREATE+SECURITY_CHANGE	archive
1	POWERSHELL.EXE- [RANDOM].pf	DATA_EXTEND+FILE_CREATE+SECURITY_CHANGE	archive
	POWERSHELL.EXE- [RANDOM].pf	DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	POWERSHELL.EXE- [RANDOM].pf	BASIC_INFO_CHANGE+DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	POWERSHELL.EXE- [RANDOM].pf	BASIC_INFO_CHANGE+CLOSE+DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	POWERSHELL.EXE- [RANDOM].pf	DATA_TRUNCATION	archive
2	POWERSHELL.EXE- [RANDOM].pf	DATA_EXTEND+DATA_TRUNCATION	archive
	POWERSHELL.EXE- [RANDOM].pf	CLOSE+DATA_EXTEND+DATA_TRUNCATION	archive
3	CustomDestinations	FILE_CREATE	directory
3	CustomDestinations	CLOSE+FILE_CREATE	directory
	[RANDOM].customDestinations- ms	FILE_CREATE	archive
	[RANDOM].customDestinations- ms	FILE_CREATE+SECURITY_CHANGE	archive
4	[RANDOM].customDestinations- ms	DATA_EXTEND+FILE_CREATE+SECURITY_CHANGE	archive
4	[RANDOM].customDestinations- ms	DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	[RANDOM].customDestinations- ms	BASIC_INFO_CHANGE+DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	[RANDOM].customDestinations- ms	BASIC_INFO_CHANGE+CLOSE+DATA_EXTEND+DATA_OVERWRITE+FILE_CREATE+SECURITY_CHANGE	archive
	[RANDOM].customDestinations- ms~RF[RANDOM].TMP	FILE_CREATE	hidden+archive+temporary
5	[RANDOM].customDestinations- ms~RF[RANDOM].TMP	CLOSE+FILE_CREATE	hidden+archive+temporary
	[RANDOM].customDestinations- ms~RF[RANDOM].TMP	CLOSE+FILE_DELETE	hidden+archive+temporary
	[RANDOM].ps1	FILE_CREATE	archive
6	[RANDOM].ps1	DATA_EXTEND+FILE_CREATE	archive
	[RANDOM].ps1	CLOSE+DATA_EXTEND+FILE_CREATE	archive
	[RANDOM].ps1	CLOSE+FILE_DELETE	archive
	[RANDOM].psm1	FILE_CREATE	archive
7	[RANDOM].psm1	DATA_EXTEND+FILE_CREATE	archive
	[RANDOM].psm1	CLOSE+DATA_EXTEND+FILE_CREATE	archive
	[RANDOM].psm1	CLOSE+FILE_DELETE	archive
8	ConsoleHost_history.txt	DATA_EXTEND	archive
	ConsoleHost_history.txt	CLOSE+DATA_EXTEND	archive

- Event Log

#	Event Log	Event ID	Task Category	Event Details
1	Microsoft-Windows- Sysmon/Operational	1	Process Create (rule: ProcessCreate)	Process Create.  • LogonGuid/LogonId: ID of the logon session • ParentProcessGuid/ParentProcessId: Process ID of the parent process • ParentImage: Executable file of the parent process • CurrentDirectory: Work directory • CommandLine: Command line of the execution command ("C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe") • IntegrityLevel: Privilege level • ParentCommandLine: Command line of the parent process • UtcTime: Process execution date and time (UTC) • ProcessGuid/ProcessId: Process ID • User: Execute as user • Hashes: Hash value of the executable file (High) • Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)
	Security	4688	Process Create	A new process has been created.  • Process Information > Required Label: Necessity of privilege escalation • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Process Information > Source Process Name: Path to parent process that created the new process • Log Date and Time: Process execution date and time (local time) • Process Information > New Process Name: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Process Information > Token Escalation Type: Presence of privilege escalation (1) • Process Information > New Process ID: Process ID (hexadecimal) • Process Information > Source Process ID: Process ID of the parent process that created the new process. "Creator Process ID" in Windows 7 • Subject > Logon ID: Session ID of the user who executed the process
	Microsoft-Windows- PowerShell/Operational	40961	PowerShell Console Startup	The PowerShell console is starting up.
2	Microsoft-Windows- PowerShell/Operational	53504	PowerShell Named Pipe IPC	Windows PowerShell has started an IPC listening thread on process [Process ID] of the [Domain].
	Microsoft-Windows- PowerShell/Operational	40962	PowerShell Console Startup	PowerShell console is ready for user input
3	Security	4656	File System/Other Object Access Events	<ul> <li>A handle to an object was requested.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile, and AppendData)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].temp)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
	Security	4663	File System	An attempt was made to access an object.  Process Information > Process ID: Process ID (hexadecimal) Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile, AppendData) Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].temp) Audit Success: Success or failure (access successful) Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) Object > Object Type: Category of the target (File) Subject > Logon ID: Session ID of the user who executed the process Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Microsoft-Windows- Sysmon/Operational	11	File created (rule: FileCreate)	File created.  • Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • ProcessGuid/ProcessId: Process ID

				<ul> <li>TargetFilename: Created file         (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\         [RANDOM].temp)</li> <li>CreationUtcTime: File creation date and time (UTC)</li> </ul>
	Microsoft-Windows- Sysmon/Operational	2	File creation time changed (rule: FileCreateTime)	File creation time changed.  • UtcTime: Date and time the change occurred (UTC)  • CreationUtcTime: New timestamp (UTC)  • Image: Path to the executable file  (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • PreviousCreationUtcTime: Old timestamp (UTC)  • TargetFilename: Name of the file changed (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].temp)
4	Security	4670	Authorization Policy Change	Permissions on an object were changed.  Process Information > Process ID: Process ID (hexadecimal)  Audit Success: Success or failure (change successful)  Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].temp)  Subject > Account Name: Name of the account that executed the tool  Subject > Account Domain: Domain to which the account belongs  Change permissions > New security descriptor: Security descriptor after the change (D:ARAI(A;;FA;;;SY)(A;;FA;;;BA)(A;;FA;;;SID])(A;ID;FA;;;SY)(A;ID;FA;;;SID]))  Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  Change permissions > Original security descriptor: Security descriptor before the change (D:(A;;FA;;;SY)(A;;FA;;;SID]))  Subject > Security ID: SID of the user who executed the tool  Object > Object Type: Category of the target (File)  Subject > Logon ID: Session ID of the user who executed the process  Object > Handle ID: ID of the relevant handle
	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  Process Information > Process ID: Process ID (hexadecimal)  Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile, and AppendData)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].customDestinations-ms)  Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  Object > Object Type: Type of the file (File)  Subject > Logon ID: Session ID of the user who executed the process  Object > Handle ID: ID of the relevant handle
5	Security	4663	File System	An attempt was made to access an object.  Process Information > Process ID: Process ID (hexadecimal) Access Request Information > Access/Reason for Access/Access Mask: Requested privilege Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool Object > Object Name: Target file name (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\ [RANDOM].customDestinations-ms) Audit Success: Success or failure (access successful) Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) Object > Object Type: Target category Subject > Logon ID: Session ID of the user who executed the process Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
6	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\[RANDOM].customDestinations-ms~[RANDOM].TMP) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Object > Object Type: Type of the file (File)

				<ul> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  Process Information > Process ID: Process ID (hexadecimal)  Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including SYNCHRONIZE, and WriteData or AddFile)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  Object > Object Name: Target file name (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations)  Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  Object > Object Type: Type of the file (File)  Subject > Logon ID: Session ID of the user who executed the process  Object > Handle ID: ID of the relevant handle
7	Security	4663	File System	An attempt was made to access an object.  Process Information > Process ID: Process ID (hexadecimal) Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (SYNCHRONIZE, WriteData or AddFile) Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool Object > Object Name: Target file name (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations) Audit Success: Success or failure (access successful) Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) Object > Object Type: Target category Subject > Logon ID: Session ID of the user who executed the process Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
8	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  Process Information > Process ID: Process ID (hexadecimal)  Access Request Information > Access/Reason for Access/Access Mask: Requested privilege (including DELETE)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  Object > Object Name: Target file name (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\ [ALPHANUM].customDestinations-ms~[ALPHANUM].TMP)  Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  Object > Object Type: Type of the file (File)  Subject > Logon ID: Session ID of the user who executed the process  Object > Handle ID: ID of the relevant handle
	Security	4663	File System	An attempt was made to access an object.  • Process Information > Process ID: Process ID (hexadecimal)  • Access Request Information > Access/Reason for Access/Access Mask: Requested privilege (DELETE)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name (C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\ [ALPHANUM].customDestinations-ms~[ALPHANUM].TMP)  • Audit Success: Success or failure (access successful)  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Object > Object Type: Category of the target (File)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4660	File System	An object was deleted.

				<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name</li> <li>Access Request Information &gt; Access: Requested privilege</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Microsoft-Windows- Sysmon/Operational	13	Registry value set (rule: RegistryEvent)	Registry value set.  • EventType: Process type (SetValue) • Image: Path to the executable file (C:\Windows\Explorer.EXE) • ProcessGuid/ProcessId: Process ID • Details: Setting value written to the registry (Binary Data) • TargetObject: Registry value at the write destination (\REGISTRY\USER\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\UserAssist\{[GUID]}\Count\ {[GUID]}\UvaqbjfCbjreFuryy\i1.0\cbjrefuryy.rkr)
9	Microsoft-Windows- Sysmon/Operational	13	Registry value set (rule: RegistryEvent)	EventType: Process type (SetValue)     Image: Path to the executable file (C:Windows\Explorer.EXE)     ProcessGuid/ProcessId: Process ID     Details: Setting value written to the registry (QWORD)     TargetObject: Registry value at the write destination (\REGISTRY\USER\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Search\JumplistData\ {[GUID]}\WindowsPowerShell\v1.0\powershell.exe)
	Microsoft-Windows- Sysmon/Operational	10	Process accessed (rule: ProcessAccess)	Process accessed.  SourceProcessGUID/SourceProcessId/SourceThreadId: Process of the access source process/Thread ID  TargetProcessGUID/TargetProcessId: Process ID of the access destination process GrantedAccess: Details of the granted access SourceImage: Path to the access source process (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) TargetImage: Path to the access destination process (C:\Windows\Explorer.EXE)
10	Security	4703	Token Right Adjusted Events	<ul> <li>Disabled Privileges: Privileges that were disabled</li> <li>Target Account &gt; Security ID/Account Name/Account Domain: Target user SID/Account name/Domain</li> <li>Target Account &gt; Logon ID: Session ID of the target user</li> <li>Enabled Privileges: Enabled privileges (SeDebugPrivilege)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Process Information &gt; Process ID: ID of the executed process</li> <li>Process Information &gt; Process Name: Name of the executed process</li> <li>(C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> </ul>
	Security	4673	Sensitive Privilege Use	A privileged service was called.  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Process > Process ID: ID of the process that used the privilege  • Subject > Logon ID: Session ID of the user who executed the process  • Service Request Information > Privilege: Privilege used (SeCreateGlobalPrivilege)  • Process > Process Name: Process that used the privilege  (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)

				A handle to an object was requested.
	Security	4656	File System/Other Object Access Events	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\RANDOM].ps1)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
11	Security	4663	File System	An attempt was made to access an object.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\ [RANDOM].ps1) • Audit Success: Success or failure (access successful) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Object > Object Type: Category of the target (File) • Subject > Logon ID: Session ID of the user who executed the process • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4656	File System/Other Object Access Events	<ul> <li>A handle to an object was requested.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\[RANDOM].psm1)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
12	Security	4663	File System	An attempt was made to access an object.  Process Information > Process ID: Process ID (hexadecimal) Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile) Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool Object > Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\ [RANDOM].psm1) Audit Success: Success or failure (access successful) Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) Object > Object Type: Category of the target (File) Subject > Logon ID: Session ID of the user who executed the process Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
13	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal)  • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including DELETE)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\[RANDOM].ps1)  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Object > Object Type: Type of the file (File)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle
	Security	4663	File System	An attempt was made to access an object.

				<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privilege (DELETE)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\ [RANDOM].ps1)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Category of the target (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
	Security	4660	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name</li> <li>Access Request Information &gt; Access: Requested privilege</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
14	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal)  • Access Request Information > Access/Reason for Access/Access Mask: Requested privilege (DELETE)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\[RANDOM].psm1)  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Object > Object Type: Type of the file (File)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle
	Security	4663	File System	An attempt was made to access an object.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privilege (DELETE) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Users\Administrator\AppData\Local\Temp\ [RANDOM].psm1) • Audit Success: Success or failure (access successful) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Object > Object Type: Category of the target (File) • Subject > Logon ID: Session ID of the user who executed the process • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4660	File System	An object was deleted.  • Process Information > Process ID: Process ID (hexadecimal)  • Audit Success: Success or failure (access successful)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name  • Access Request Information > Access: Requested privilege  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	The handle to an object was closed.  • Process Information > Process ID: Process ID (hexadecimal)  • Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process

A handle to an object vas requested.  A handle to an object vas requested.  Process information > Process ID (headedomal).  Access Request Information > Access/Recess Mask Requested privileges (including white betas or Addition).  Security  Abba Digist Access  Denta D					Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
Process information > Process ID (headedmal) Access/Requested (Access/Recoss) Fire System/Other Clipica Access Formity  4656  Fire System  Access Requested (Access) Formity  Access Requested (Access) Formity  Access Requested (Access) Formity  Access Requested (Access) Formity  Access Requested (Access) Process Information > Process Information (C)(Windows) Proceedably Downsor(Access) Process Information > Process Information (Access/Recoss) Process Information > Process Information (Access/Recoss)  An attempt was made to access an object.  An attempt was made to access an object was requested (Access/Recoss) An attempt was made to access an object was requested (Access/Recoss) An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  Access Request Information > Process ID (Process ID (Process) Access that requested the object (C) (Windows/Systems/Recoss)  Access Request Information > Process ID (Process)  Access Request Information > Process ID (Process/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to access an object was requested (Access/Recoss)  An attempt was made to acces	15		13	(rule:	<ul> <li>EventType: Process type (SetValue)</li> <li>Image: Path to the executable file (C:Windows\Explorer.EXE)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>Details: Setting value written to the registry (Binary Data)</li> <li>TargetObject: Registry value at the write destination (\REGISTRY\USER\ [SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\UserAssist\{[GUID]}\Count\</li> </ul>
Process Information > Process ID: Process ID (hoxadecimal)  Access Request Information > Access/Reason for Access/Access Mask: Requested Subject > Security		Security	4656	Object Access	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Windows\Prefetch\POWERSHELL.EXE-[RANDOM].pf)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
Process Information > Process ID: Process ID (hexadecimal) Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\svchozotos)   Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain user who executed the tool Subject > Logon ID: Session ID of the user who executed the process   Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)  A handle to an object was requested. (A handle to an object was requested.) Process Information > Process ID: Process ID (hexadecimal) A cacess Request Information > Access/Reason for Access/Access Mask: Requested privileges (including Writeda or AddFile) Security  Process Information > Process ID: Process ID: Process ID: Process Information > Information > Process ID: Process Information > Process ID: Process Information > Process ID: Process ID: Process ID: Process Information > Process ID:	16	Security	4663	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privilege</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Windows\Prefetch\POWERSHELL.EXE-[RANDOM].pf)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe)</li> <li>Object &gt; Object Type: Category of the target (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
Process Information > Process ID: Process ID: (hexadecimal)		Security	4658	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Process Information &gt; Process Name: Name of the process that requested the object (C:\Windows\System32\svchost.exe)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
Process Information > Process ID: Process ID (hexadecimal)  Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain user who executed the tool  Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_his Audit Success: Success or failure (access successful)  Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)	17	Security	4656	Object Access	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_history.txt)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
• Object > Object > Description (File)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)		Security	4663	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_history.txt)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Category of the target (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
Security  4658 File System  Process Information > Process ID: Process ID (hexadecimal)  Process Information > Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)		Security	4658	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Process Information &gt; Process Name: Name of the process that requested the object</li> </ul>

	Microsoft-Windows-	4104	Execute a Remote	Subject > Logon ID: Session ID of the user who executed the process     Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)  Creating Scriptblock text.  Massage: The content of the script executed. The content of the executed PowerShell script is
8	PowerShell/Operational	4104	Command.	<ul> <li>Message: The content of the script executed. The content of the executed PowerShell script is recorded as is.</li> </ul>
9	Microsoft-Windows- Sysmon/Operational	2	File creation time changed (rule: FileCreateTime)	<ul> <li>• UtcTime: Date and time the change occurred (UTC)</li> <li>• CreationUtcTime: New timestamp (UTC)</li> <li>• Image: Path to the executable file</li> <li>• PreviousCreationUtcTime: Old timestamp (UTC)</li> <li>• TargetFilename: Name of the file changed</li> </ul>
	Microsoft-Windows- WinRM/Operational	29	WSMan API Initialize	Initializing the WSMan API completed successfully.
	Microsoft-Windows- WinRM/Operational	6	WSMan Session Initialize	Creating WSMan Session. The connect string is [Connect String].  • Connect String: Host name (source host)
	Microsoft-Windows- WinRM/Operational	31	WSMan Session Initialize	WSMan Create Session operation completed successfully
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully  • Option Number: Option number for the setting target (34)  • Value: Value set (WSMAN_OPTION_USE_INTEARACTIVE_TOKEN)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully  • Option Number: Option number for the setting target (26)  • Value: Value set (WSMAN_OPTION_UI_LANGUAGE)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully  • Option Number: Option number for the setting target (25)  • Value: Value set (WSMAN_OPTION_LOCALE)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully  Option Number: Option number for the setting target (1)  Value: Value set (WSMAN_OPTION_DEFAULT_OPERATION_TIMEOUTMS)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully     Option Number: Option number for the setting target (12)     Value: Value set (WSMAN_OPTION_TIMEOUTMS_CREATE_SHELL)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully     Option Number: Option number for the setting target (17)     Value: Value set (WSMAN_OPTION_TIMEOUTMS_CLOSE_SHELL)
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully     Option Number: Option number for the setting target (16)     Value: Value set (WSMAN_OPTION_TIMEOUTMS_SIGNAL_SHELL)
	Microsoft-Windows- WinRM/Operational	11	WSMan API Call	Creating a WSMan shell with the resource URI http://schemas.microsoft.com/wbem/wsman/1/windows/shell/cmd and ShellId Unspecified.
	Microsoft-Windows- WinRM/Operational	10	WSMan API Call	<ul> <li>Setting WSMan Session Option ([Option Number]) with value ([Value]) completed successfully</li> <li>Option Number: Option number for the setting target (28)</li> <li>Value: Value set (WSMAN_OPTION_MAX_ENVELOPE_SIZE_KB)</li> </ul>
	Microsoft-Windows- WinRM/Operational	13	WSMan API Call	Executing the WSMan command of Commandld Unspecified.
	Microsoft-Windows- PowerShell/Operational	8193	Connect	Creating Runspace object.  • Instance ID: Instance ID of the object
	Microsoft-Windows- PowerShell/Operational	8194	Connect	Creating RunspacePool object.  • Instance ID: Instance ID of the object
	Microsoft-Windows- PowerShell/Operational	8195	Connect	Opening RunspacePool.
	Microsoft-Windows- PowerShell/Operational	8197	Connect	Runspace state changed to [State].  • State: State of the runspace (Opening)
	Microsoft-Windows- PowerShell/Operational	8196	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.

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	Microsoft-Windows- PowerShell/Operational	12039	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	8196	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	12039	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	8196	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	12039	PowerShell (Microsoft- Windows-	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	8197	PowerShell)  Connect	Runspace state changed to [State].  • State: State of the runspace (Opened)
	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal)  • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_history.txt)  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • Object > Object Type: Type of the file (File)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle
20	Security	4663	File System	An attempt was made to access an object.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadline\ConsoleHost_history.txt) • Audit Success: Success or failure (access successful) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Object > Object Type: Category of the target (File) • Subject > Logon ID: Session ID of the user who executed the process • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4658	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Process Information &gt; Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
21	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	<ul> <li>Protocol: Protocol (tcp)</li> <li>DestinationIp: Destination IP address (Domain Controller IP address)</li> <li>Image: Path to the executable file (C:\Windows\System32\lsass.exe)</li> <li>DestinationHostname: Destination host name (Domain Controller host name)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>User: Execute as user (NT AUTHORITY\SYSTEM)</li> <li>DestinationPort: Destination port number (88)</li> <li>SourcePort: Source port number (high port)</li> <li>SourceHostname: Source host name (source host name)</li> <li>SourceIp: Source IP address (source host IP address)</li> </ul>
	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)

	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (88)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (Domain Controller)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (Domain Controller IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (Domain Controller host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (88) SourcePort: Source port number (high port) SourceHostname: Source host name (source host name) SourceIp: Source IP address (source host IP address)
22	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (88)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (Domain Controller)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp) DestinationIp: Destination IP address (Domain Controller IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (Domain Controller host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (88) SourcePort: Source port number (high port) SourceHostname: Source host name (source host name) SourceIp: Source IP address (source host IP address)
23	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (88)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (Domain Controller)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
24	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (5985) SourcePort: Source port number (high port)

			<u> </u>	SourceIp: Source IP address (source host IP address)  The Windows Filtering Platform has permitted a bind to a local port.
	Security	5158	Filtering Platform Connection	<ul> <li>Network Information &gt; Protocol: Protocol used (6=TCP)</li> <li>Network Information &gt; Source Port: Bind local port (high port)</li> <li>Application Information &gt; Process ID: Process ID</li> <li>Application Information &gt; Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)</li> </ul>
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (5985)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp)  DestinationIp: Destination IP address (destination host IP address)  Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  DestinationHostname: Destination host name (destination host name)  ProcessGuid/ProcessId: Process ID  User: Execute as user (NT AUTHORITY\SYSTEM)  DestinationPort: Destination port number (5985)  SourcePort: Source port number (high port)  SourceHostname: Source host name (source host name)  SourceIp: Source IP address (source host IP address)
	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)
26	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (5985)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (5985) SourcePort: Source port number (high port) SourceHostname: Source host name (source host name) SourceIp: Source IP address (source host IP address)
	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)

		][		The Windows Eiltering Platform has allowed a somestion
	Security	5156	Filtering Platform Connection	<ul> <li>Network Information &gt; Destination Port: Destination port number (5985)</li> <li>Network Information &gt; Source Port: Source port number (high port)</li> <li>Network Information &gt; Destination Address: Destination IP address (destination host)</li> <li>Network Information &gt; Protocol: Protocol used (6=TCP)</li> <li>Application Information &gt; Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)</li> <li>Network Information &gt; Direction: Communication direction (outbound)</li> <li>Network Information &gt; Source Address: Source IP address (source host)</li> <li>Application Information &gt; Process ID: Process ID</li> </ul>
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	<ul> <li>Protocol: Protocol (tcp)</li> <li>DestinationIp: Destination IP address (destination host IP address)</li> <li>Image: Path to the executable file         (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>DestinationHostname: Destination host name (destination host name)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>User: Execute as user (NT AUTHORITY\SYSTEM)</li> <li>DestinationPort: Destination port number (5985)</li> <li>SourcePort: Source port number (high port)</li> <li>SourceHostname: Source host name (source host name)</li> <li>SourceIp: Source IP address (source host IP address)</li> </ul>
27	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (5985)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\windowspowershell\v1.0\powershell.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (source host)  • Application Information > Process ID: Process ID
28	Microsoft-Windows- Sysmon/Operational	12	Registry object added or deleted (rule: RegistryEvent)	Registry object added or deleted.  • EventType: Process type (CreateKey)  • Image: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)  • ProcessGuid/ProcessId: Process ID  • TargetObject: Created/deleted registry key/value (\REGISTRY\MACHINE\SYSTEM\ControlSet001\Services\Tcpip\Parameters)
	Microsoft-Windows- WinRM/Operational	15	WSMan API Call	Closing WSMan command
	Microsoft-Windows- WinRM/Operational	16	WSMan API Call	Closing WSMan shell
	Microsoft-Windows- WinRM/Operational	8	WSMan Session Uninitialize	Closing WSMan session
	Microsoft-Windows- WinRM/Operational	4	WSMan API Uninitialize	Uninitializing WSMan API
	Microsoft-Windows- WinRM/Operational	30	WSMan API Uninitialize	Uninitializing WSMan API completed successfully
29	Microsoft-Windows- WinRM/Operational	33	WSMan Session Initialize	The operation for closing the WSMan session completed successfully.
23	Microsoft-Windows- PowerShell/Operational	8196	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	12039	PowerShell (Microsoft- Windows- PowerShell)	Modifying activity ID and correlating.
	Microsoft-Windows- PowerShell/Operational	8197	Connect	Runspace state changed to [State].
	Microsoft-Windows- PowerShell/Operational	8197	Connect	Runspace state changed to [State].
30	Security	4656	File System/Other Object Access Events	<ul> <li>A handle to an object was requested.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> </ul>

				<ul> <li>Object &gt; Object Name: Target file name (C:\Users\[User Name]\AppData\Local\Microsoft\Windows\PowerShell\StartupProfileData-Interactive)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Type of the file (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
	Security	4663	File System	<ul> <li>An attempt was made to access an object.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name (C:\Users\[User Name]\AppData\Local\Microsoft\Windows\PowerShell\StartupProfileData-Interactive)</li> <li>Audit Success: Success or failure (access successful)</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Object &gt; Object Type: Category of the target (File)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
	Security	4658	File System	<ul> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Process Information &gt; Process Name: Name of the process that requested the object (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)</li> </ul>
	Microsoft-Windows- Sysmon/Operational	5	Process terminated (rule: ProcessTerminate)	Process terminated.  • UtcTime: Process terminated date and time (UTC)  • ProcessGuid/ProcessId: Process ID  • Image: Path to the executable file  (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe)
31	Security	4689	Process Termination	A process has exited.  • Process Information > Process ID: Process ID (hexadecimal) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Process Information > Exit Status: Process return value (0xc000013a) • Subject > Account Name: Name of the account that executed the tool • Log Date and Time: Process terminated date and time (local time) • Subject > Account Domain: Domain to which the account belongs • Process Information > Process Name: Path to the executable file (C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe) • Subject > Security ID: SID of the user who executed the tool • Subject > Logon ID: Session ID of the user who executed the process

## - UserAssist

#	Registry entry	Information That Can Be Confirmed
1	HKEY_USERS\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\UserAssist\{CEBFF5CD-ACE2-4F4F-9178-9926F41749EA}\Count\{1NP14R77-02R7-4R5Q-0744-2R01NR519807}\JvaqbjfCbjreFuryy\i1.0\cbjrefuryy.rkr	Date and time of the initial execution, Total number of executions

# - MFT

#	Path	Header Flag	Validity
1	[Drive Name]:\Windows\Prefetch\POWERSHELL.EXE-[RANDOM].pf	FILE	ALLOCATED
2	[Drive Name]:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations	FOLDER	ALLOCATED
3	[Drive Name]:\Users\[User Name]\AppData\Roaming\Microsoft\Windows\Recent\CustomDestinations\ [RANDOM].customDestinations-ms	FILE	ALLOCATED
4	$[Drive\ Name]: \ \ Users \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	FILE	ALLOCATED

- Prefetch

#	Prefetch File	Process Name	Process Path	Information That Can Be Confirmed
1	POWERSHELL.EXE- [RANDOM].pf	POWERSHELL.EXE	\VOLUME{[GUID]}\WINDOWS\SYSTEM32\WINDOWSPOWERSHELL\V1.0\POWERSHELL.EXE	Last Run Time (last execution date and time)

## - Registry Entry

#	Path	Туре	Value
1	HKEY_USERS\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\UserAssist\{CEBFF5CD-ACE2-4F4F-9178-9926F41749EA}\Count\{1NP14R77-02R7-4R5Q-0744-2R01NR519807}\JvaqbjfCbjreFuryy\i1.0\cbjrefuryy.rkr	Binary	[Binary Value]
2	HKEY_USERS\[User SID]\SOFTWARE\Microsoft\Windows\CurrentVersion\Search\JumplistData\{1AC14E77-02E7-4E5D-B744-2EB1AE5198B7}\WindowsPowerShell\v1.0\powershell.exe	Binary	[Binary Value]

# \_ Details: Destination Host

## - Event Log

vent Log						
# Event log	Event ID	Task Category	Event Details			
Microsoft-Wind WinRM/Operati	ows- 169	User Authentication	User [User Name] authenticated successfully using [Authentication Method] authentication  • User Name: User name used  • Authentication Method: Authentication method used (Kerberos)			
Security	4624	Logon	An account was successfully logged on.  Process Information > Process ID: Process ID (hexadecimal)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  New Logon > Logon ID/Logon GUID: Session ID of the user who was logged on  Detailed Authentication Information > Package Name (NTLM only): NTLM version  Detailed Authentication Information > Logon Process: Process used for logon (Kerberos)  Network Information > Source Port: Source port number  New Logon > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who was logged on  Logon Type: Logon path, method, etc. (3=Network)  Network Information > Workstation Name: Name of the host that requested the logon  Detailed Authentication Information > Key Length: Length of the key used for the authentication (0)  Process Information > Process Name: Path to the executable file  Detailed Authentication Information > Authentication Package: Authentication package used (Kerberos)  Network Information > Source Network Address: IP address that requested the logon  Subject > Logon ID: Session ID of the user who executed the authentication			
Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal)  • Access Request Information > Access/Reason for Access/Access Mask: Requested privilege  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Object > Object Name: Target file name  • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe)  • Object > Object Type: File type (Unknown)  • Subject > Logon ID: Session ID of the user who executed the process  • Object > Handle ID: ID of the relevant handle			
2 Microsoft-Wind Sysmon/Operat	≺	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (source host IP address) Image: Path to the executable file (System) DestinationHostname: Destination host name (source host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (5985) SourceHostname: Source host name (destination host name) SourceIp: Source IP address (destination host IP address)			
Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (5985)  • Network Information > Destination Address: Destination IP address (source host)			

				<ul> <li>Network Information &gt; Protocol: Protocol used (6=TCP)</li> <li>Application Information &gt; Application Name: Execution process (System)</li> <li>Network Information &gt; Direction: Communication direction (inbound)</li> <li>Network Information &gt; Source Address: Source IP address (destination host)</li> <li>Application Information &gt; Process ID: Process ID</li> </ul>
	Security	4672	Special Logon	Privileges assigned to a new logon.  • Privileges: Assigned privileges (SeSecurityPrivilege, SeBackupPrivilege, SeRestorePrivilege, SeTakeOwnershipPrivilege, SeDebugPrivilege, SeSystemEnvironmentPrivilege, SeLoadDriverPrivilege, SeImpersonatePrivilege)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	<ul> <li>Protocol: Protocol (tcp)</li> <li>DestinationIp: Destination IP address (Domain Controller IP address)</li> <li>Image: Path to the executable file (System)</li> <li>DestinationHostname: Destination host name (Domain Controller host name)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>User: Execute as user (NT AUTHORITY\SYSTEM)</li> <li>DestinationPort: Destination port number (88)</li> <li>SourcePort: Source port number (high port)</li> <li>SourceHostname: Source host name (destination host)</li> <li>SourceIp: Source IP address (destination host IP address)</li> </ul>
3	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (88)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (Domain Controller)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (destination host)  • Application Information > Process ID: Process ID
	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	<ul> <li>Protocol: Protocol (tcp)</li> <li>DestinationIp: Destination IP address (Domain Controller IP address)</li> <li>Image: Path to the executable file (System)</li> <li>DestinationHostname: Destination host name (Domain Controller host name)</li> <li>ProcessGuid/ProcessId: Process ID</li> <li>User: Execute as user (NT AUTHORITY\SYSTEM)</li> <li>DestinationPort: Destination port number (88)</li> <li>SourcePort: Source port number (high port)</li> <li>SourceHostname: Source host name (destination host)</li> <li>SourceIp: Source IP address (destination host IP address)</li> </ul>
4	Security	5158	Filtering Platform Connection	The Windows Filtering Platform has permitted a bind to a local port.  • Network Information > Protocol: Protocol used (6=TCP)  • Network Information > Source Port: Bind local port (high port)  • Application Information > Process ID: Process ID  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (88)  • Network Information > Source Port: Source port number (high port)  • Network Information > Destination Address: Destination IP address (Domain Controller)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (outbound)  • Network Information > Source Address: Source IP address (destination host)  • Application Information > Process ID: Process ID
5	Security	4688	Process Create	<ul> <li>A new process has been created.</li> <li>Process Information &gt; Required Label: Necessity of privilege escalation</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Process Information &gt; Source Process Name: Path to parent process that created the new process</li> <li>Log Date and Time: Process execution date and time (local time)</li> </ul>

				<ul> <li>Process Information &gt; New Process Name: Path to the executable file         (C:\Windows\System32\wsmprovhost.exe)</li> <li>Process Information &gt; Token Escalation Type: Presence of privilege escalation (1)</li> <li>Process Information &gt; New Process ID: Process ID (hexadecimal)</li> <li>Process Information &gt; Source Process ID: Process ID of the parent process that created the new process. "Creator Process ID" in Windows 7</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
6	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp)  DestinationIp: Destination IP address (source host IP address)  Image: Path to the executable file (System)  DestinationHostname: Destination host name (source host name)  ProcessGuid/ProcessId: Process ID  User: Execute as user (NT AUTHORITY\SYSTEM)  DestinationPort: Destination port number (high port)  SourcePort: Source port number (5985)  SourceHostname: Source host name (destination host name)  SourceIp: Source IP address (destination host IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  Network Information > Destination Port: Destination port number (high port) Network Information > Source Port: Source port number (5985) Network Information > Destination Address: Destination IP address (source host) Network Information > Protocol: Protocol used (6=TCP) Application Information > Application Name: Execution process (System) Network Information > Direction: Communication direction (inbound) Network Information > Source Address: Source IP address (destination host) Application Information > Process ID: Process ID
	Security	4672	Special Logon	Privileges assigned to a new logon.  Privileges: Assigned privileges (SeSecurityPrivilege, SeBackupPrivilege, SeRestorePrivilege, SeTakeOwnershipPrivilege, SeDebugPrivilege, SeSystemEnvironmentPrivilege, SeLoadDriverPrivilege, SeImpersonatePrivilege)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  Subject > Logon ID: Session ID of the user who executed the process
7	Security	4624	Logon	An account was successfully logged on.  Process Information > Process ID: Process ID (hexadecimal)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  New Logon > Logon ID/Logon GUID: Session ID of the user who was logged on  Detailed Authentication Information > Package Name (NTLM only): NTLM version  Detailed Authentication Information > Logon Process: Process used for logon (Kerberos)  Network Information > Source Port: Source port number  New Logon > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who was logged on  Logon Type: Logon path, method, etc.  Network Information > Workstation Name: Name of the host that requested the logon  Detailed Authentication Information > Key Length: Length of the key used for the authentication (0)  Process Information > Process Name: Path to the executable file  Detailed Authentication Information > Authentication Package: Authentication package used (Kerberos)  Network Information > Source Network Address: IP address that requested the logon  Subject > Logon ID: Session ID of the user who executed the authentication
	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  Process Information > Process ID: Process ID (hexadecimal) Access Request Information > Access/Reason for Access/Access Mask: Requested privilege Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool Object > Object Name: Target file name Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe) Object > Object Type: File type (Unknown) Subject > Logon ID: Session ID of the user who executed the process Object > Handle ID: ID of the relevant handle
8	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	193	User Approval	A request for the user is made using a WinRM virtual account.  • User Information: Information of the user  • Virtual Account: WinRM virtual account to be used
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code

	Microsoft-Windows-			Processing client request for operation [Operation].
	WinRM/Operational	81	Processing of Request	Operation: Requested process (CreateShell)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	<ul> <li>Entering the plug-in for executing the operation [Operation]. ResourceURI &lt;[URL]&gt; is used.</li> <li>URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell)</li> <li>Operation: Requested process (Shell)</li> </ul>
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (CreateShell)
9	Microsoft-Windows- WinRM/Operational	169	User Authentication	User [User Name] authenticated successfully using [Authentication Method] authentication  • User Name: User name used  • Authentication Method: Authentication method used (Kerberos)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	193	User Approval	A request for the user is made using a WinRM virtual account.  • User Information: Information of the user • Virtual Account: WinRM virtual account to be used
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	<ul> <li>Entering the plug-in for executing the operation [Operation]. ResourceURI &lt;[URL]&gt; is used.</li> <li>URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell)</li> <li>Operation: Requested process (Receive)</li> </ul>
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Receive)
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Shell)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell)  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Receive)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell)  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user

				Error: Error code
10	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (5985)  • Network Information > Destination Address: Destination IP address (source host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (System)  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (destination host)  • Application Information > Process ID: Process ID
	Security	4672	Special Logon	Privileges assigned to a new logon.  • Privileges: Assigned privileges (SeSecurityPrivilege, SeBackupPrivilege, SeRestorePrivilege, SeTakeOwnershipPrivilege, SeDebugPrivilege, SeSystemEnvironmentPrivilege, SeLoadDriverPrivilege, SeImpersonatePrivilege)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the process
11	Security	4624	Logon	An account was successfully logged on. (An account successfully logged on.)  • Process Information > Process ID: Process ID (hexadecimal)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • New Logon > Logon ID/Logon GUID: Session ID of the user who was logged on  • Detailed Authentication Information > Package Name (NTLM only): NTLM version  • Detailed Authentication Information > Logon Process: Process used for logon (Kerberos)  • Network Information > Source Port: Source port number  • New Logon > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who was logged on  • Logon Type: Logon path, method, etc.  • Network Information > Workstation Name: Name of the host that requested the logon  • Detailed Authentication Information > Key Length: Length of the key used for the authentication (0)  • Process Information > Process Name: Path to the executable file  • Detailed Authentication Information > Authentication Package: Authentication package used (Kerberos)  • Network Information > Source Network Address: IP address that requested the logon  • Subject > Logon ID: Session ID of the user who executed the authentication
	Security	4656	File System/Other Object Access Events	<ul> <li>A handle to an object was requested.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privilege</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe)</li> <li>Object &gt; Object Type: File type (Unknown)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
12	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (5985)  • Network Information > Destination Address: Destination IP address (source host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (System)  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (destination host)  • Application Information > Process ID: Process ID
13	Security	4624	Logon	An account was successfully logged on. (An account successfully logged on.)  • Process Information > Process ID: Process ID (hexadecimal)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • New Logon > Logon ID/Logon GUID: Session ID of the user who was logged on  • Detailed Authentication Information > Package Name (NTLM only): NTLM version  • Detailed Authentication Information > Logon Process: Process used for logon (Kerberos)  • Network Information > Source Port: Source port number  • New Logon > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who was logged on  • Logon Type: Logon path, method, etc. (3=Network)  • Network Information > Workstation Name: Name of the host that requested the logon  • Detailed Authentication Information > Key Length: Length of the key used for the authentication (0)  • Process Information > Process Name: Path to the executable file  • Detailed Authentication Information > Authentication Package: Authentication package used (Kerberos)  • Network Information > Source Network Address: IP address that requested the logon

Security	4656	File System/Other Object Access Events	<ul> <li>A handle to an object was requested.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Access Request Information &gt; Access/Reason for Access/Access Mask: Requested privilege</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Target file name</li> <li>Process Information &gt; Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe)</li> <li>Object &gt; Object Type: File type (Unknown)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> <li>Object &gt; Handle ID: ID of the relevant handle</li> </ul>
Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Command)
Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShel  • Operation: Requested process (Command)
Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Command)
Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Command)
Microsoft-Windows- WinRM/Operational	169	User Authentication	User [User Name] authenticated successfully using [Authentication Method] authentication  • User Name: User name used  • Authentication Method: Authentication method used (Kerberos)
Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
Microsoft-Windows- WinRM/Operational	193	User Approval	A request for the user is made using a WinRM virtual account.  • User Information: Information of the user  • Virtual Account: WinRM virtual account to be used
Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Send)
Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell  • Operation: Requested process (Send)
Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Send)
Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Send)
Microsoft-Windows- WinRM/Operational	169	User Authentication	User [User Name] authenticated successfully using [Authentication Method] authentication  • User Name: User name used  • Authentication Method: Authentication method used (Kerberos)
Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
Microsoft-Windows- WinRM/Operational	193	User Approval	A request for the user is made using a WinRM virtual account.  • User Information: Information of the user  • Virtual Account: WinRM virtual account to be used
Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Receive)

				Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	<ul> <li>URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell)</li> <li>Operation: Requested process (Receive)</li> </ul>
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Receive)
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Send)
15	Security	4624	Logon	An account was successfully logged on.  Process Information > Process ID: Process ID (hexadecimal)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  New Logon > Logon ID/Logon GUID: Session ID of the user who was logged on  Detailed Authentication Information > Package Name (NTLM only): NTLM version  Detailed Authentication Information > Logon Process: Process used for logon (Advapi)  Network Information > Source Port: Source port number  New Logon > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who was logged on  Logon Type: Logon path, method, etc. (5)  Network Information > Workstation Name: Name of the host that requested the logon  Detailed Authentication Information > Key Length: Length of the key used for the authentication (0)  Process Information > Process Name: Path to the executable file  Detailed Authentication Information > Authentication Package: Authentication package used (Negotiate)  Network Information > Source Network Address: IP address that requested the logon  Subject > Logon ID: Session ID of the user who executed the authentication
	Security	4672	Special Logon	Privileges assigned to a new logon.  Privileges: Assigned privileges (SeAssignPrimaryTokenPrivilege, SeAuditPrivilege, SeImpersonatePrivilege)  Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  Subject > Logon ID: Session ID of the user who executed the process
	Security	4688	Process Create	A new process has been created.  • Process Information > Required Label: Necessity of privilege escalation • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Process Information > Source Process Name: Path to parent process that created the new process • Log Date and Time: Process execution date and time (local time) • Process Information > New Process Name: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe) • Process Information > Token Escalation Type: Presence of privilege escalation (1) • Process Information > New Process ID: Process ID (hexadecimal) • Process Information > Source Process ID: Process ID of the parent process that created the new process. "Creator Process ID" in Windows 7 • Subject > Logon ID: Session ID of the user who executed the process
16	Security	4674	Sensitive Privilege Use	<ul> <li>An operation was attempted on a privileged object.</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Name of the object to be processed (\BaseNamedObjects\LOADPERF_MUTEX)</li> <li>Object &gt; Object Server: Service that executed the process</li> <li>Requested operation &gt; Privileges: Requested privileges (SeTakeOwnershipPrivilege)</li> <li>Process Information &gt; Process Name: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)</li> <li>Object &gt; Object Type: Type of the object to be processed (Mutant)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
	Security	4674	Sensitive Privilege Use	<ul> <li>An operation was attempted on a privileged object.</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Object &gt; Object Name: Name of the object to be processed</li> <li>Object &gt; Object Server: Service that executed the process</li> <li>Requested operation &gt; Privileges: Requested privileges (SeTakeOwnershipPrivilege)</li> <li>Process Information &gt; Process Name: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)</li> <li>Object &gt; Object Type: Type of the object to be processed</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
17	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.     Protocol: Protocol (tcp)     DestinationIp: Destination IP address (source host IP address)     Image: Path to the executable file (System)     DestinationHostname: Destination host name (source host name)     ProcessGuid/ProcessId: Process ID

				<ul> <li>User: Execute as user (NT AUTHORITY\SYSTEM)</li> <li>DestinationPort: Destination port number (high port)</li> <li>SourcePort: Source port number (5985)</li> <li>SourceHostname: Source host name (destination host name)</li> <li>SourceIp: Source IP address (destination host IP address)</li> </ul>
18	Microsoft-Windows- Sysmon/Operational	12	Registry object added or deleted (rule: RegistryEvent)	Registry object added or deleted.  • EventType: Process type (CreateKey) • Image: Path to the executable file (C:\Windows\system32\wsmprovhost.exe) • ProcessGuid/ProcessId: Process ID • TargetObject: Created/deleted registry key/value (\REGISTRY\MACHINE\SYSTEM\ControlSet001\services\Tcpip\Parameters)
19	Microsoft-Windows- Sysmon/Operational	1	Process Create (rule: ProcessCreate)	Process Create.  • LogonGuid/LogonId: ID of the logon session • ParentProcessGuid/ParentProcessId: Process ID of the parent process • ParentImage: Executable file of the parent process (C:\Windows\System32\svchost.exe) • CurrentDirectory: Work directory (C:\Windows\system32\) • CommandLine: Command line of the execution command (C:\Windows\system32\wbem\wmiprvse.exe -secured -Embedding) • IntegrityLevel: Privilege level (System) • ParentCommandLine: Command line of the parent process (C:\Windows\system32\svchost.exe -k DcomLaunch) • UtcTime: Process execution date and time (UTC) • ProcessGuid/ProcessId: Process ID • User: Execute as user (NT AUTHORITY\NETWORK SERVICE) • Hashes: Hash value of the executable file • Image: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)
20	Microsoft-Windows- Sysmon/Operational	12	Registry object added or deleted (rule: RegistryEvent)	Registry object added or deleted.  • EventType: Process type (CreateKey) • Image: Path to the executable file (C:\Windows\system32\wsmprovhost.exe) • ProcessGuid/ProcessId: Process ID • TargetObject: Created/deleted registry key/value (\REGISTRY\MACHINE\SOFTWARE\Microsoft\WBEM)
21	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (source host IP address) Image: Path to the executable file (System) DestinationHostname: Destination host name (source host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (5985) SourceHostname: Source host name (destination host name) SourceIp: Source IP address (destination host IP address)
22	Security	4656	File System/Other Object Access Events	A handle to an object was requested.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (including WriteData or AddFile, and AppendData) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Windows\Prefetch\WSMPROVHOST.EXE-[RANDOM].pf) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe) • Object > Object Type: Type of the file (File) • Subject > Logon ID: Session ID of the user who executed the process • Object > Handle ID: ID of the relevant handle
	Security	4663	File System	An attempt was made to access an object.  • Process Information > Process ID: Process ID (hexadecimal) • Access Request Information > Access/Reason for Access/Access Mask: Requested privileges (WriteData or AddFile, AppendData) • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool • Object > Object Name: Target file name (C:\Windows\Prefetch\WSMPROVHOST.EXE-[RANDOM].pf) • Audit Success: Success or failure (access successful) • Process Information > Process Name: Name of the process that closed the handle (C:\Windows\System32\svchost.exe) • Object > Object Type: Category of the target (File) • Subject > Logon ID: Session ID of the user who executed the process • Object > Handle ID: ID of the relevant handle (handle obtained with Event ID 4656)
	Security	4673	Sensitive Privilege Use	A privileged service was called.  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Process > Process ID: ID of the process that used the privilege  • Subject > Logon ID: Session ID of the user who executed the process

				<ul> <li>Service Request Information &gt; Privilege: Privileges used (SeTcbPrivilege)</li> <li>Process &gt; Process Name: Process that used the privileges         <ul> <li>(C:\Windows\System32\wsmprovhost.exe)</li> </ul> </li> </ul>
	Security	4673	Sensitive Privilege Use	A privileged service was called.  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain or the user who executed the tool  • Process > Process ID: ID of the process that used the privilege  • Subject > Logon ID: Session ID of the user who executed the process  • Service Request Information > Privilege: Privileges used (SeTcbPrivilege)  • Process > Process Name: Process that used the privileges  (C:\Windows\System32\wsmprovhost.exe)
	Security	4634	Logoff	An account was logged off.  • Logon Type: Logon path, method, etc. (3=Network)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the authentication
3	Security	4634	Logoff	An account was logged off.      Logon Type: Logon path, method, etc. (3=Network)     Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain o the user who executed the tool     Subject > Logon ID: Session ID of the user who executed the authentication
	Security	4634	Logoff	An account was logged off. (An account was logged off.)  • Logon Type: Logon path, method, etc. (3=Network)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Subject > Logon ID: Session ID of the user who executed the authentication
4	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Send)
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Receive)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (Signal)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used (entering the plug-in for executing the Signal operation. ResourceURI schemas.microsoft.com/powershell/Microsoft.PowerShell> is used.)  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell] • Operation: Requested process (Signal)
	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (Signal)
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (Signal)
	Microsoft-Windows- WinRM/Operational	192	User Approval	Authorizing the user  • Error: Error code
	Microsoft-Windows- WinRM/Operational	81	Processing of Request	Processing client request for operation [Operation].  • Operation: Requested process (DeleteShell)
	Microsoft-Windows- WinRM/Operational	82	Processing of Request	Entering the plug-in for executing the operation [Operation]. ResourceURI <[URL]> is used.  • URL: URL of the resource (http://schemas.microsoft.com/powershell/Microsoft.PowerShell  • Operation: Requested process (DeleteShell)
	Microsoft-Windows- WinRM/Operational	141	Response Processing	Sending the operation timeout response: [Operation]  • Operation: Process performed (Receive)
	Microsoft-Windows- WinRM/Operational	83	Processing of Request	Coming out of the plug-in for executing the operation [Operation].  • Operation: Requested process (DeleteShell)
	Microsoft-Windows-	134	Response Processing	Sending response for operation [Operation]

	Microsoft-Windows- WinRM/Operational	134	Response Processing	Sending response for operation [Operation]  • Operation: Process performed (DeleteShell)
25	Security	4689	Process Termination	<ul> <li>A process has exited.</li> <li>Process Information &gt; Process ID: Process ID (hexadecimal)</li> <li>Subject &gt; Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool</li> <li>Process Information &gt; Exit Status: Process return value (0x0)</li> <li>Log Date and Time: Process terminated date and time (local time)</li> <li>Process Information &gt; Process Name: Path to the executable file (C:\Windows\System32\wsmprovhost.exe)</li> <li>Subject &gt; Logon ID: Session ID of the user who executed the process</li> </ul>
	Microsoft-Windows- Sysmon/Operational	5	Process terminated (rule: ProcessTerminate)	Process terminated.  • UtcTime: Process terminated date and time (UTC)  • ProcessGuid/ProcessId: Process ID  • Image: Path to the executable file (C:\Windows\System32\wsmprovhost.exe)
26	Security	4689	Process Termination	A process has exited.  • Process Information > Process ID: Process ID (hexadecimal)  • Subject > Security ID/Account Name/Account Domain: SID/Account name/Domain of the user who executed the tool  • Process Information > Exit Status: Process return value (0x0)  • Log Date and Time: Process terminated date and time (local time)  • Process Information > Process Name: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)  • Subject > Logon ID: Session ID of the user who executed the process
	Microsoft-Windows- Sysmon/Operational	5	Process terminated (rule: ProcessTerminate)	Process terminated.  • UtcTime: Process terminated date and time (UTC)  • ProcessGuid/ProcessId: Process ID  • Image: Path to the executable file (C:\Windows\System32\wbem\WmiPrvSE.exe)

## - USN Journal

#	File Name	Process	Attribute	
1	WSMPROVHOST.EXE-[RANDOM].pf	FILE_CREATE	archive+not_indexed	

#### - MFT

#	Path	Header Flag	Validity
1	[Drive Name]:\Windows\Prefetch\WSMPROVHOST.EXE-[RANDOM].pf	FILE	ALLOCATED

## - Prefetch

#	Prefetch File	Process Name	Process Path	Information That Can Be Confirmed
1	WSMPROVHOST.EXE-[RANDOM].pf	WSMPROVHOST.EXE	C:\WINDOWS\SYSTEM32\WSMPROVHOST.EXE	Last Run Time (last execution date and time)

# - Details: Domain Controller

## - Event Log

#	Event Log	Event ID	Task Category	Event Details
1	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (88) SourceHostname: Source host name (Domain Controller host name) SourceIp: Source IP address (Domain Controller IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.

				<ul> <li>Network Information &gt; Destination Port: Destination port number (high port)</li> <li>Network Information &gt; Source Port: Source port number (88)</li> <li>Network Information &gt; Destination Address: Destination IP address (destination host)</li> <li>Network Information &gt; Protocol: Protocol used (6=TCP)</li> <li>Application Information &gt; Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)</li> <li>Network Information &gt; Direction: Communication direction (inbound)</li> <li>Network Information &gt; Source Address: Source IP address (Domain Controller)</li> <li>Application Information &gt; Process ID: Process ID</li> </ul>
2	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (88) SourceHostname: Source host name (Domain Controller host name) SourceIp: Source IP address (Domain Controller IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (88)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (Domain Controller)  • Application Information > Process ID: Process ID
3	Security	4768	Kerberos Authentication Service	A Kerberos authentication ticket (TGT) was requested.      Network Information > Client Address: Source IP address that requested the ticket (destination host IP address)      Account Information > Supplied Realm Name: Domain of the account     Additional Information > Ticket Option: Ticket settings (0x40810010)      Account Information > Account Name: Name of the account from which the ticket was requested      Additional Information > Result Code: Ticket processing result (0x0)      Network Information > Client Port: Source port number of the ticket request (high port)      Account Information > User ID: SID of the account
4	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Network connection detected.  Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (88) SourceHostname: Source host name (Domain Controller host name) SourceIp: Source IP address (Domain Controller IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (88)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (Domain Controller)  • Application Information > Process ID: Process ID
5	Security	4769	A Kerberos service ticket was requested	A Kerberos service ticket was requested.      Network Information > Client Address: Source IP address that requested the ticket (source host)      Account Information > Account Domain: Domain of the account      Account Information > Account Name: Name of the account from which the ticket was requested.

ticket was requested

				<ul> <li>Additional Information &gt; Ticket Option: Ticket settings (0x40810010)</li> <li>Additional Information &gt; Error Code: Ticket processing result (0x0)</li> <li>Service Information &gt; Service Name: Service name of the ticket</li> <li>Account Information &gt; Logon GUID: Session ID of the logon</li> <li>Service Information &gt; Service ID: SID of the service</li> <li>Network Information &gt; Client Port: Source port number of the ticket request (high port)</li> </ul>
6	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp) DestinationIp: Destination IP address (destination host IP address) Image: Path to the executable file (C:\Windows\System32\lsass.exe) DestinationHostname: Destination host name (destination host name) ProcessGuid/ProcessId: Process ID User: Execute as user (NT AUTHORITY\SYSTEM) DestinationPort: Destination port number (high port) SourcePort: Source port number (88) SourceHostname: Source host name (Domain Controller host name) SourceIp: Source IP address (Domain Controller IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (88)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process (\device\harddiskvolume2\windows\system32\lsass.exe)  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (Domain Controller)  • Application Information > Process ID: Process ID
7	Security	4769	A Kerberos service ticket was requested	<ul> <li>A Kerberos service ticket was requested.</li> <li>Network Information &gt; Client Address: Source IP address that requested the ticket (source host)</li> <li>Account Information &gt; Account Domain: Domain of the account</li> <li>Account Information &gt; Account Name: Name of the account from which the ticket was requested</li> <li>Additional Information &gt; Ticket Option: Ticket settings (0x40810010)</li> <li>Additional Information &gt; Error Code: Ticket processing result (0x0)</li> <li>Service Information &gt; Service Name: Service name of the ticket</li> <li>Account Information &gt; Logon GUID: Session ID of the logon</li> <li>Service Information &gt; Service ID: SID of the service</li> <li>Network Information &gt; Client Port: Source port number of the ticket request (high port)</li> </ul>
8	Microsoft-Windows- Sysmon/Operational	3	Network connection detected (rule: NetworkConnect)	Protocol: Protocol (tcp)  DestinationIp: Destination IP address (destination host IP address)  Image: Path to the executable file (C:\Windows\System32\lsass.exe)  DestinationHostname: Destination host name (destination host name)  ProcessGuid/ProcessId: Process ID  User: Execute as user (NT AUTHORITY\SYSTEM)  DestinationPort: Destination port number (high port)  SourcePort: Source port number (88)  SourceHostname: Source host name (Domain Controller host name)  SourceIp: Source IP address (Domain Controller IP address)
	Security	5156	Filtering Platform Connection	The Windows Filtering Platform has allowed a connection.  • Network Information > Destination Port: Destination port number (high port)  • Network Information > Source Port: Source port number (88)  • Network Information > Destination Address: Destination IP address (destination host)  • Network Information > Protocol: Protocol used (6=TCP)  • Application Information > Application Name: Execution process  • Network Information > Direction: Communication direction (inbound)  • Network Information > Source Address: Source IP address (Domain Controller)  • Application Information > Process ID: Process ID