GitHub - Kevin-Robertson/Invoke-TheHash: PowerShell Pass The Hash Utils

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Invoke-TheHash contains PowerShell functions for performing pass the hash WMI and SMB tasks. WMI and SMB connections are accessed through the .NET TCPClient. Authentication is performed by passing an NTLM hash into the NTLMv2 authentication protocol. Local administrator privilege is not required client-side.

Requirements

Minimum PowerShell 2.0

Import

Import-Module ./Invoke-TheHash.psd1

or

. ./Invoke-WMIExec.ps1
. ./Invoke-SMBExec.ps1
. ./Invoke-SMBEnum.ps1
. ./Invoke-SMBClient.ps1
. ./Invoke-TheHash.ps1

Functions

- Invoke-WMIExec
- Invoke-SMBExec
- Invoke-SMBEnum
- Invoke-SMBClient
- Invoke-TheHash

Invoke-WMIExec

- WMI command execution function.

Parameters:

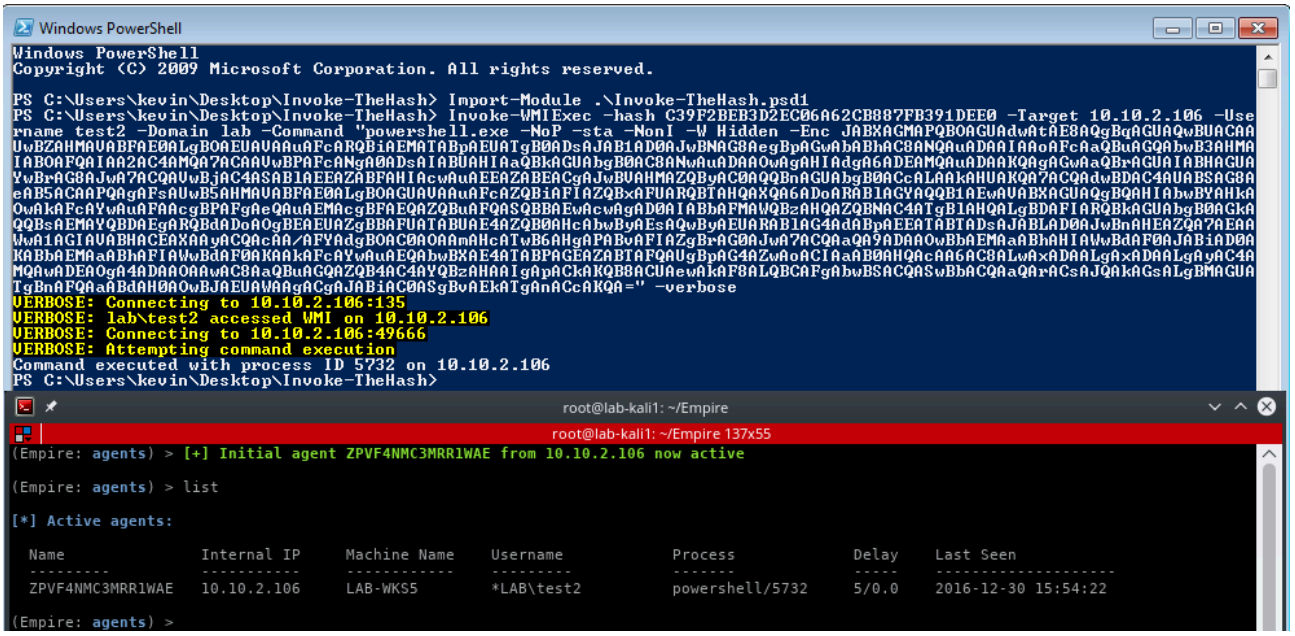
- **Target** - Hostname or IP address of target.
- **Username** - Username to use for authentication.

- **Domain** - Domain to use for authentication. This parameter is not needed with local accounts or when using @domain after the username.
- **Hash** - NTLM password hash for authentication. This function will accept either LM:NTLM or NTLM format.
- **Command** - Command to execute on the target. If a command is not specified, the function will just check to see if the username and hash has access to WMI on the target.
- **Sleep** - Default = 10 Milliseconds: Sets the function's Start-Sleep values in milliseconds.

Example:

Invoke-WMIExec -Target 192.168.100.20 -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -Command "command or launcher to execute" -verbose

Screenshot:



Invoke-SMBExec

- SMB (PsExec) command execution function supporting SMB1, SMB2.1, with and without SMB signing.

Parameters:

- **Target** - Hostname or IP address of target.
- **Username** - Username to use for authentication.
- **Domain** - Domain to use for authentication. This parameter is not needed with local accounts or when using @domain after the username.
- **Hash** - NTLM password hash for authentication. This function will accept either LM:NTLM or NTLM format.
- **Command** - Command to execute on the target. If a command is not specified, the function will just check to see if the username and hash has access to SCM on the target.

- **CommandCOMSPEC** - Default = Enabled: Prepend %COMSPEC% /C to Command.
- **Service** - Default = 20 Character Random: Name of the service to create and delete on the target.
- **Sleep** - Default = 150 Milliseconds: Sets the function's Start-Sleep values in milliseconds.
- **Version** - Default = Auto: (Auto,1,2.1) Force SMB version. The default behavior is to perform SMB version negotiation and use SMB2.1 if supported by the target.

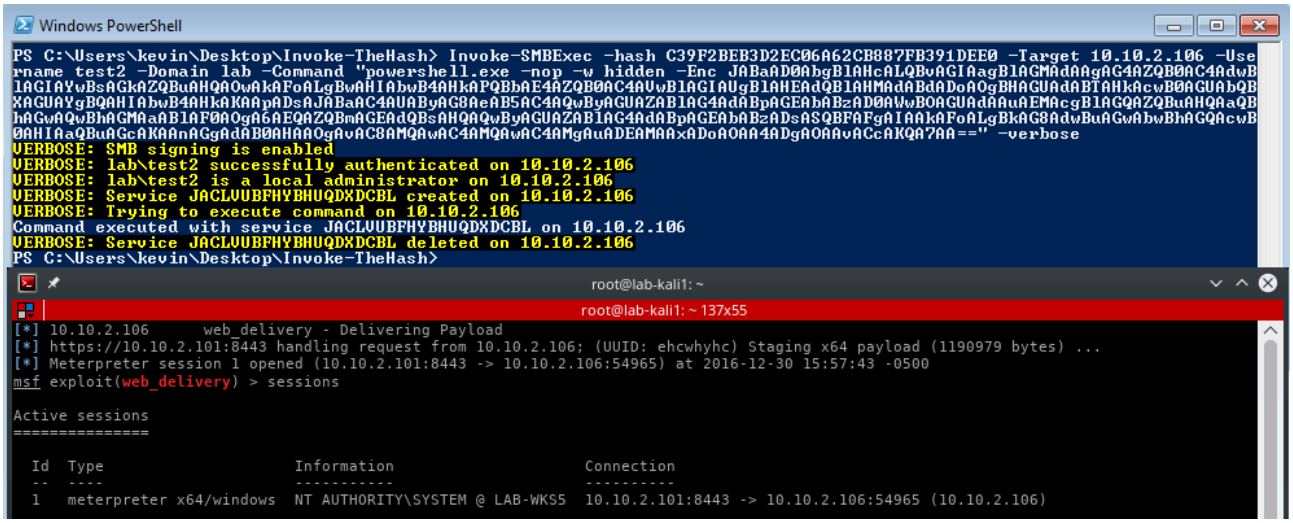
Example:

Invoke-SMBExec -Target 192.168.100.20 -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -Command "command or launcher to execute" -verbose

Example:

Check SMB signing requirements on target. Invoke-SMBExec -Target 192.168.100.20

Screenshot:



Invoke-SMBEnum

- Invoke-SMBEnum performs User, Group, NetSession and Share enumeration tasks over SMB2.1 with and without SMB signing.

Parameters:

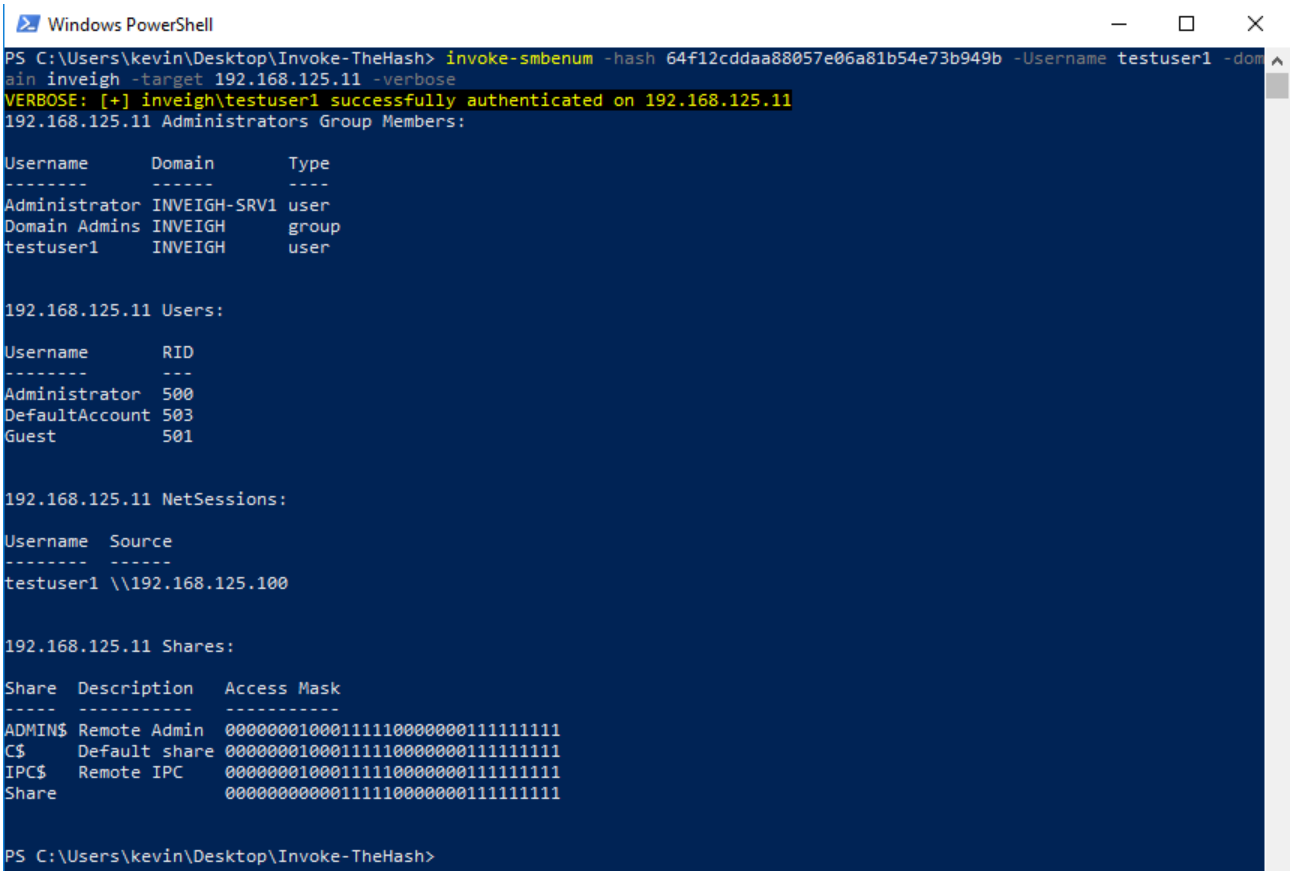
- **Target** - Hostname or IP address of target.
- **Username** - Username to use for authentication.
- **Domain** - Domain to use for authentication. This parameter is not needed with local accounts or when using @domain after the username.
- **Hash** - NTLM password hash for authentication. This function will accept either LM:NTLM or NTLM format.
- **Action** - (All,Group,NetSession,Share,User) Default = Share: Enumeration action to perform.
- **Group** - Default = Administrators: Group to enumerate.

- **Sleep** - Default = 150 Milliseconds: Sets the function's Start-Sleep values in milliseconds.
- **Version** - Default = Auto: (Auto,1,2.1) Force SMB version. The default behavior is to perform SMB version negotiation and use SMB2.1 if supported by the target. Note, only the signing check works with SMB1.

Example:

Invoke-SMBEnum -Target 192.168.100.20 -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -verbose

Screenshot:



Invoke-SMBClient

- SMB client function supporting SMB2.1 and SMB signing. This function primarily provides SMB file share capabilities for working with hashes that do not have remote command execution privilege. This function can also be used for staging payloads for use with Invoke-WMIExec and Invoke-SMBExec. Note that Invoke-SMBClient is built on the .NET TCPClient and does not use the Windows SMB client. Invoke-SMBClient is much slower than the Windows client.

Parameters:

- **Username** - Username to use for authentication.

- **Domain** - Domain to use for authentication. This parameter is not needed with local accounts or when using @domain after the username.
- **Hash** - NTLM password hash for authentication. This function will accept either LM:NTLM or NTLM format.
- **Action** - Default = List: (List/Recurse/Delete/Get/Put) Action to perform.
    1. List: Lists the contents of a directory.
    2. Recurse: Lists the contents of a directory and all subdirectories.
    3. Delete: Deletes a file.
    4. Get: Downloads a file.
    5. Put: Uploads a file and sets the creation, access, and last write times to match the source file.
- **Source**
    1. List and Recurse: UNC path to a directory.
    2. Delete: UNC path to a file.
    3. Get: UNC path to a file.
    4. Put: File to upload. If a full path is not specified, the file must be in the current directory. When using the 'Modify' switch, 'Source' must be a byte array.
- **Destination**
    1. List and Recurse: Not used.
    2. Delete: Not used.
    3. Get: If used, value will be the new filename of downloaded file. If a full path is not specified, the file will be created in the current directory.
    4. Put: UNC path for uploaded file. The filename must be specified.
- **Modify**
    1. List and Recurse: The function will output an object consisting of directory contents.
    2. Delete: Not used.
    3. Get: The function will output a byte array of the downloaded file instead of writing the file to disk. It's advisable to use this only with smaller files and to send the output to a variable.
    4. Put: Uploads a byte array to a new destination file.
- **NoProgress** - Prevents displaying an upload and download progress bar.
- **Sleep** - Default = 100 Milliseconds: Sets the function's Start-Sleep values in milliseconds.
- **Version** - Default = Auto: (Auto,1,2.1) Force SMB version. The default behavior is to perform SMB version negotiation and use SMB2.1 if supported by the target. Note, only the signing check works with SMB1.

Example:

List the contents of a root share directory.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -Source \\server\share -verbose

Example:

Recursively list the contents of a share starting at the root.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Recurse -Source \\server\share

Example:

Recursively list the contents of a share subdirectory and return only the contents output to a variable.
$directory_contents = Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Recurse -Source \\server\share\subdirectory -Modify

Example:

Delete a file on a share.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Delete -Source \\server\share\file.txt

Example:

Delete a file in subdirectories within a share.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Delete -Source
\\server\share\subdirectory\subdirectory\file.txt

Example:

Download a file from a share.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Get -Source \\server\share\file.txt

Example:

Download a file from within a share subdirectory and set a new filename.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Get -Source \\server\share\subdirectory\file.txt -Destination
file.txt

Example:

Download a file from a share to a byte array variable instead of disk.
$password_file = Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash
F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Get -Source \\server\share\file.txt -Modify

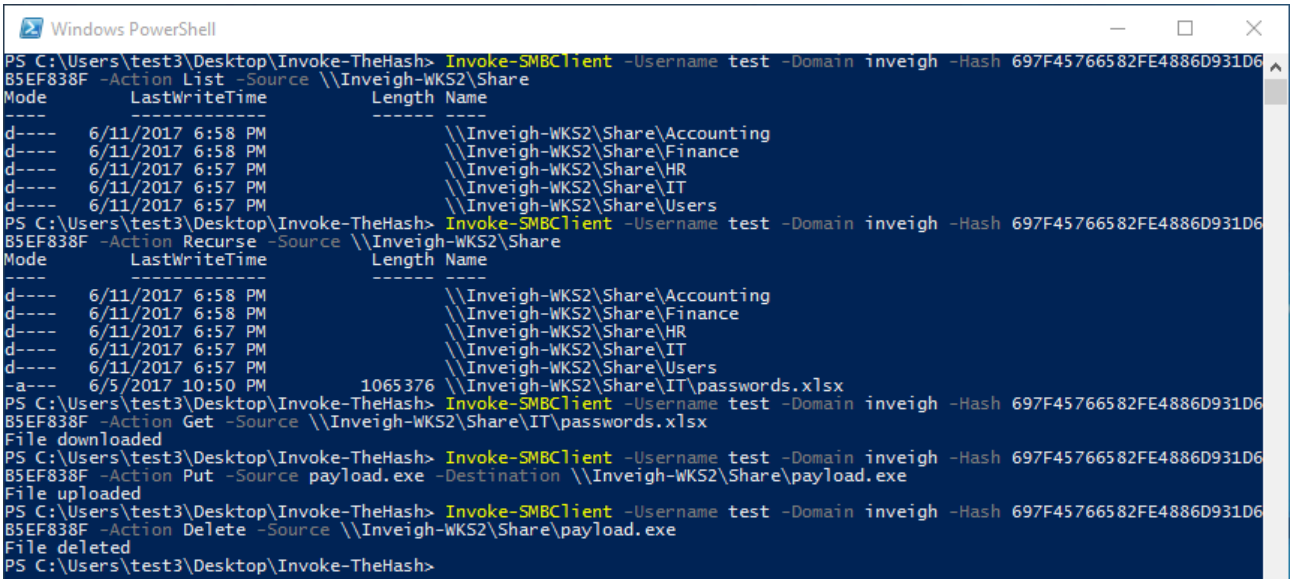
Example:

Upload a file to a share subdirectory.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Put -Source file.exe -Destination \\server\share\subdirectory\file.exe

Example:

Upload a file to share from a byte array variable.
Invoke-SMBClient -Domain TESTDOMAIN -Username TEST -Hash F6F38B793DB6A94BA04A52F1D3EE92F0 -Action Put -Source $file_byte_array -Destination \\server\share\file.txt -Modify

Screenshot:



Invoke-TheHash

- Function for running Invoke-TheHash functions against multiple targets.

Parameters:

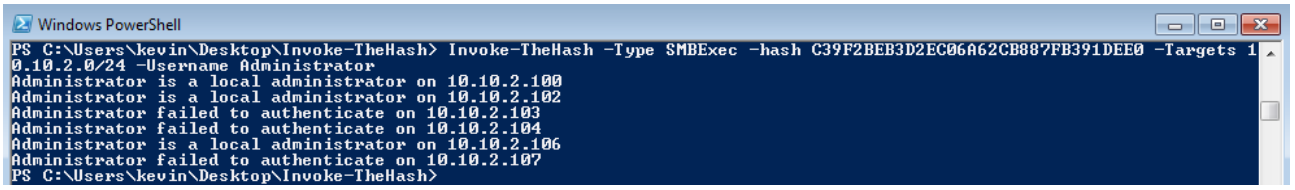
- **Type** - Sets the desired Invoke-TheHash function. Set to either SMBClient, SMBEnum, SMBExec, or WMIExec.
- **Target** - List of hostnames, IP addresses, CIDR notation, or IP ranges for targets.
- **TargetExclude** - List of hostnames, IP addresses, CIDR notation, or IP ranges to exclude from the list or targets.
- **PortCheckDisable** - (Switch) Disable WMI or SMB port check. Since this function is not yet threaded, the port check serves to speed up he function by checking for an open WMI or SMB port before attempting a full synchronous TCPClient connection.
- **PortCheckTimeout** - Default = 100: Set the no response timeout in milliseconds for the WMI or SMB port check.

- **Username** - Username to use for authentication.
- **Domain** - Domain to use for authentication. This parameter is not needed with local accounts or when using @domain after the username.
- **Hash** - NTLM password hash for authentication. This module will accept either LM:NTLM or NTLM format.
- **Command** - Command to execute on the target. If a command is not specified, the function will just check to see if the username and hash has access to WMI or SCM on the target.
- **CommandCOMSPEC** - Default = Enabled: SMBExec type only. Prepend %COMSPEC% /C to Command.
- **Service** - Default = 20 Character Random: SMBExec type only. Name of the service to create and delete on the target.
- **SMB1** - (Switch) Force SMB1. SMBExec type only. The default behavior is to perform SMB version negotiation and use SMB2 if supported by the target.
- **Sleep** - Default = WMI 10 Milliseconds, SMB 150 Milliseconds: Sets the function's Start-Sleep values in milliseconds.

Example:

Invoke-TheHash -Type WMIExec -Target 192.168.100.0/24 -TargetExclude 192.168.100.50 -Username Administrator -Hash F6F38B793DB6A94BA04A52F1D3EE92F0

Screenshot:



Source: https://github.com/Kevin-Robertson/Invoke-TheHash