Hydra

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Learn how to brute-force authentications services such as SSH and HTTP (POST).

[Task 1] Hydra Introduction

What is Hydra?
Hydra is a brute force online password cracking program; a quick system login password 'hacking' tool.

We can use Hydra to run through a list and 'bruteforce' some authentication service. Imagine trying to manually guess someones password on a particular service (SSH, Web Application Form, FTP or SNMP) - we can use Hydra to run through a password list and speed this process up for us, determining the correct password.

Hydra has the ability to bruteforce the following protocols: Asterisk, AFP, Cisco AAA, Cisco auth, Cisco enable, CVS, Firebird, FTP, HTTP-FORM-GET, HTTP-FORM-POST, HTTP-GET, HTTP-HEAD, HTTP-POST, HTTP-PROXY, HTTPS-FORM-GET, HTTPS-FORM-POST, HTTPS-GET, HTTPS-HEAD, HTTPS-POST, HTTP-Proxy, ICQ, IMAP, IRC, LDAP, MS-SQL, MYSQL, NCP, NNTP, Oracle Listener, Oracle SID, Oracle, PC-Anywhere, PCNFS, POP3, POSTGRES, RDP, Rexec, Rlogin, Rsh, RTSP, SAP/R3, SIP, SMB, SMTP, SMTP Enum, SNMP v1+v2+v3, SOCKS5, SSH (v1 and v2), SSHKEY, Subversion, Teamspeak (TS2), Telnet, VMware-Auth, VNC and XMPP.
For more information on the options of each protocol in Hydra, read the official Kali Hydra tool page: https://en.kali.tools/?p=220
This shows the importance of using a strong password, if your password is common, doesn't contain special characters and/or is not above 8 characters, its going to be prone to being guessed. 100 million password lists exist containing common passwords, so when an out-of-the-box application uses an easy password to login, make sure to change it from the default! Often CCTV camera's and web frameworks use admin:password as the default password, which is obviously not strong enough.

Installing Hydra

If you're using Kali Linux, hydra is pre-installed. Otherwise you can download it here: https://github.com/vanhauser-thc/thc-hydra
If you don't have Linux or the right desktop environment, you can deploy your own Kali Linux machine with all the needed security tools. You can even control the machine in your browser! Do this with our Kali room - https://tryhackme.com/room/kali

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[#1] Read the above and have Hydra at the ready.

```
no answer needed
```

[Task 2] Using Hydra

Deploy the machine attached to this task, then navigate to http://MACHINE_IP *(this machine can take up to 3 minutes to boot)*

Hydra Commands

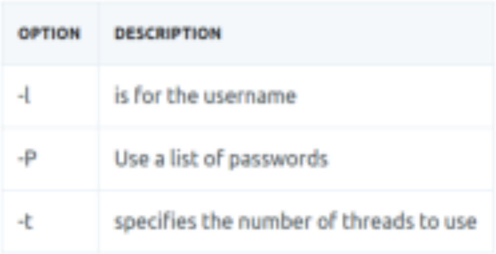
The options we pass into Hydra depends on which service (protocol) we're attacking. For example if we wanted to bruteforce FTP with the username being user and a password list being passlist.txt, we'd use the following command:

```
hydra -l user -P passlist.txt ftp://192.168.0.1
```

For the purpose of this deployed machine, here are the commands to use Hydra on SSH and a web form (POST method).

SSH

```
hydra -l <username> -P <full path to pass> <ip> -t 4 ssh
```



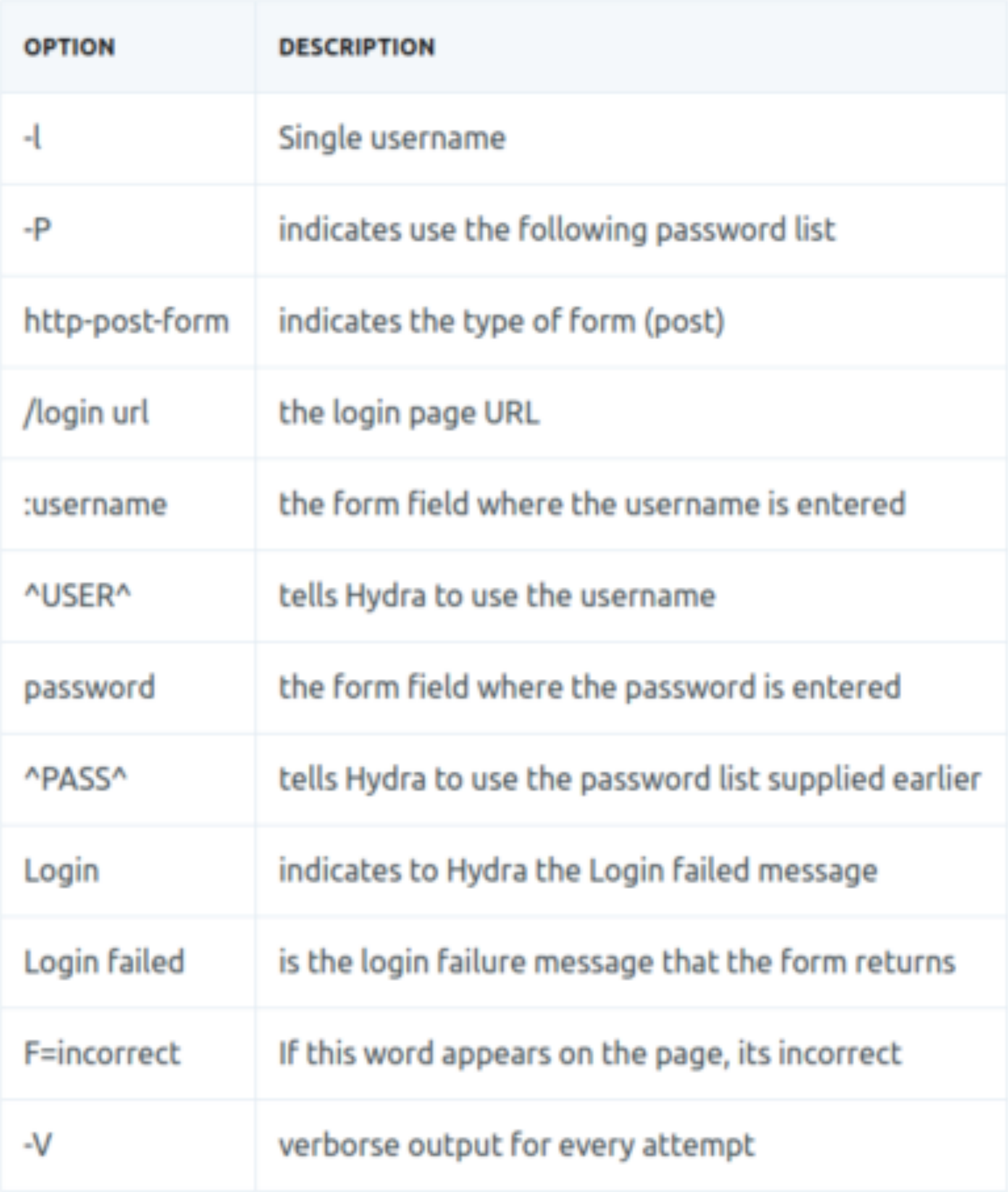
OPTION	DESCRIPTION
-l	is for the username
-P	Use a list of passwords
-t	specifies the number of threads to use

Post Web Form

We can use Hydra to bruteforce web forms too, you will have to make sure you know which type of request its

making - a GET or POST methods are normally used. You can use your browsers network tab (in developer tools) to see the request types, of simply view the source code.
Below is an example Hydra command to brute force a POST login form:

```
hydra -l  -P   http-post-form "/:username=^USER^&password=^PASS^:F=incorrect" -V
```



OPTION	DESCRIPTION
-l	Single username
-P	indicates use the following password list
http-post-form	indicates the type of form (post)
/login url	the login page URL
:username	the form field where the username is entered
^USER^	tells Hydra to use the username
password	the form field where the password is entered
^PASS^	tells Hydra to use the password list supplied earlier
Login	indicates to Hydra the Login failed message
Login failed	is the login failure message that the form returns
F=incorrect	If this word appears on the page, its incorrect
-V	verborse output for every attempt

You should now have enough information to put this to practise and brute-force yourself credentials to the deployed machine!

[#1] Use Hydra to bruteforce molly's web password. What is flag 1?

THM{2673a7dd116de68e85c48ec0b1f2612e}

[#2] Use Hydra to bruteforce molly's SSH password. What is flag 2?

THM{c8eeb0468febbadea859baeb33b2541b}