Crackin’ Hashes with

Hashcat usage

Syntax

```
hashcat -a <attack mode> -m <hash type> <file to crack> <wordlist>
```

-a <attack mode>

- There are 6 different modes of attack, we'll discuss the four most common ones
  - 0 | Straight
  - 1 | Combination
  - 3 | Brute-force
  - 6 | Hybrid Wordlist + Mask
  - 7 | Hybrid Mask + Wordlist
  - 9 | Association

-m <hash type>

- There are waaaaaay too many hash types to list here, but you can see them all by entering the command `hashcat --help`

<file to crack>

- This will be the file which contains the hash.

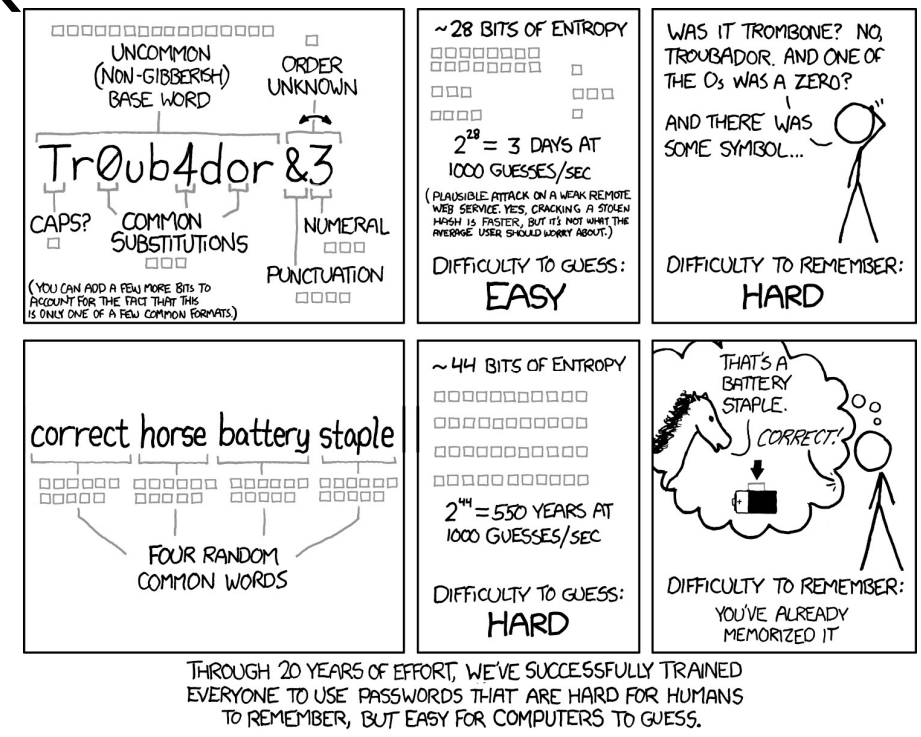
<wordlist>

- This will be the list of words used to crack the hash

1.hash – Dictionary Attack

- Mode
  - -a 0

Cracking passwords is, unfortunately, very easy to do. It just takes hardware and time.



- First, we'll need to identify the hash.

```
hashid 1.hash -m
```

- Then we can crack the hash.

```
hashcat -a 0 -m <hash type> 1.hash passwordlist.txt
```

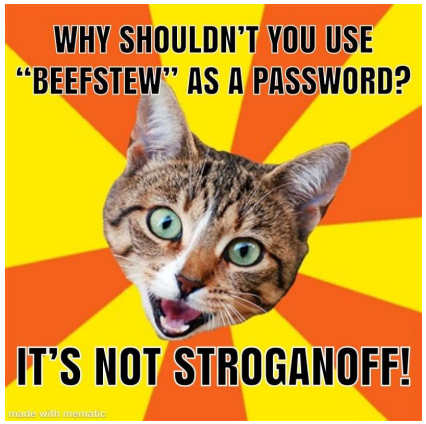
2.hash – Dictionary Attack

- Mode
  - -a 0
- First, we'll need to identify the hash.

```
hashid 2.hash –m
```

- Then we can crack the hash.

```
hashcat -a 0 -m <hash type> 2.hash passwordlist.txt
```



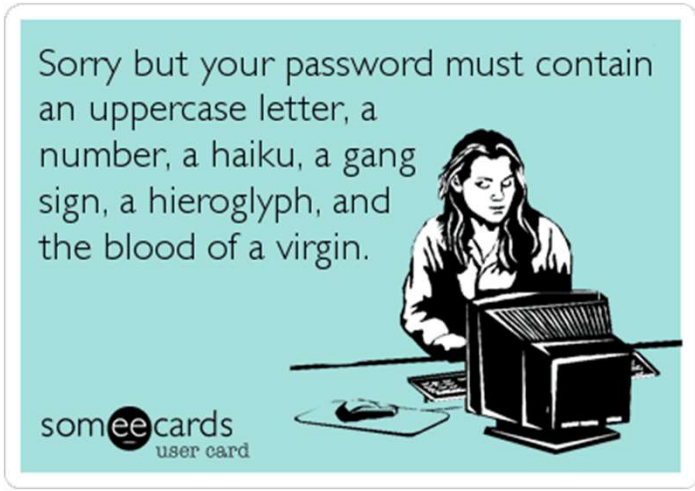
3.hash – Combination Attack

- Mode
  - -a 1
- First, we'll need to identify the hash.

  ```
  hashid 3.hash –m
  ```
- For this one, we're going to use two separate password lists to crack the hash.

  ```
  hashcat -a 1 -m <hash type> 3.hash passwordlist.txt
  passwordlist2.txt
  ```

4.hash – Mask Mode



- Mode
  - -a 3
- First, we'll need to identify the hash.

```
hashid 4.hash -m
```

- If we have a good idea of what the password may be, or if we just want to try , we can use placeholders.
  - ?l: Lower-case ASCII letters (a-z)
  - ?u: Upper-case ASCII letters (A-Z)
  - ?d: Digits (0-9)
  - ?h: Lower-case hexadecimal characters (0123456789abcdef)
  - ?H: Upper-case hexadecimal characters (0123456789ABCDEF)
  - ?s: Special characters (space, !"#$%&'()*+,-./:;<=>?@[]^_`{|}~)
  - ?a: All printable ASCII characters (combination of ?l, ?u, ?d, and ?s)
  - ?b: All possible byte values (0x00 - 0xff)
- Now we can crack the hash

```
hashcat -a 3 -m <hash type> 4.hash -1 01 'Lenovo?d?d?d?d?s'
```

5.hash – Hybrid Mode

- Mode
  - -a 6
- First, we'll need to identify the hash.

```
hashid 5.hash –m
```

- We can also use placeholders in conjunction with wordlists.

Now we can crack the hash.

```
hashcat -a 6 -m <hash type> 5.hash passwordlist.txt '?d?d?d?d'
```