

Writeup - Diskfall

When a user will get the disk the first commands might be:

- 1) `mmls disk.img` or `fdisk -l disk.img` # They will see 2 partitions
- 2) `losetup -fP disk.img` # To make the partitions on loop
- 3) `mkdir /mnt/fat32 /mnt/linux`
- 4) `mount -o ro /dev/loop0p1 /mnt/fat32` # Mounting FAT32 partition
- 5) `mount -o ro /dev/loop0p2 /mnt/linux` # Mounting linux partition, gives superblock error

Part1

- 6) `fls -f fat32 -o 2048 disk.img` # Will give an deleted file, which will contain first part
- 7) `lcat -f fat32 -o 2048 disk.img 7 > secret.txt` # 1st part of the flag

Now user still needs to check the `/mnt/fat32` folder as it has `.images` folder

- 8) `cd /mnt/fat32`
- 9) `ls -la`
- 10) `cd .images` # Will see 2 images
- 11) `strings *` # User can see that there is some encryption, some hidden data
- 12) `stegseek -crack banner.jpg/chest.jpg <rockyou.txt>` or `stegcracker banner.jpeg/chest.jpeg <rockyou.txt>` # User will need to think about the wordlist

Users will get `db.log` and some decoy log files, now users will need to read through them and need to understand that **db.log** has information related to password, so the password attempts are wrong, but user needs to get those passwords and create **an wordlist** from those wrong passwords

Wordlist Making - `crunch {{6}} {{6}} -p 23quen`

- 13) `exiftool *` # Will get an **bcrypt hash** in as metadata from `chest.jpeg`

Part2

- 14) `binwalk -e disk.img --run-as=root` #will show that the partition contains a 7z file
- 15) `dd if=/dev/loop0p2 of=part2.7z bs=1 skip=512 status=progress` or `dd if=disk.img of=part2.7z count=1 skip=3146240 status=progress` #To extract the 7z file from the /dev/loop0p2 partition

Now users will see that part2.7z has encryption, now they will apply their wordlist on the hash

- 16) `echo "<hash>" > hashes.txt` # Storing the hash
- 17) `john --format=bcrypt --wordlist=createdwordlist.txt hashes.txt` #Will give them password
- 18) `7z x part2.7z` # To extract the 7z file

Users can now put password and get part2_blob