

## Writeup for CID

Name : CID

Domain : Steganography

Difficulty : Medium

Description : Watch the image carefully!!!

Points : 300

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File given : case69.jpg

We have been given with a jpg file case69.jpg. Using binwalk on this image file gives info that there is 7-zip file in this image.

```
(root@Kali)-[~/Desktop/steg]
# binwalk case69.jpg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	JPEG image data, JFIF standard 1.01
1078146	0x107382	7-zip archive data, version 0.4

The 7-zip file can be extracted using the command “7za e code69.jpg” which gives 1000 images and 1 text file.

```
Scanning the drive for archives:
1 file, 1128202 bytes (1102 KiB)

Extracting archive: case69.jpg
--
Path = case69.jpg
Type = 7z
Offset = 1078146
Physical Size = 50056
Headers Size = 925
Method = LZMA2:24m
Solid = +
Blocks = 1

Everything is Ok

Folders: 1
Files: 1001
Size:      24381050
Compressed: 1128202
```

The text file says “You are very close mate. The flag is just around here. Hope you find it.”

The flag might be in any of the image.

Using exiftool gives the following

```
(root@kali) ~/Desktop/steg
# exiftool case69.jpg
ExifTool Version Number      : 12.48
File Name                    : case69.jpg
Directory                    : .
File Size                     : 1128 kB
File Modification Date/Time   : 2023:03:27 19:28:29+05:30
File Access Date/Time        : 2023:03:27 19:32:08+05:30
File Inode Change Date/Time   : 2023:03:27 19:32:08+05:30
File Permissions              : -rw-----
File Type                     : JPEG
File Type Extension          : jpg
MIME Type                    : image/jpeg
JFIF Version                  : 1.01
Resolution Unit               : None
X Resolution                  : 1
Y Resolution                  : 1
XMP Toolkit                   : Image::ExifTool 12.48
Certificate                   : This is for you PASS='daya darwaza tod do'
Image Width                   : 5318
Image Height                  : 2992
Encoding Process              : Baseline DCT, Huffman coding
Bits Per Sample               : 8
Color Components              : 3
Y Cb Cr Sub Sampling          : YCbCr4:4:4 (1 1)
Image Size                    : 5318x2992
Megapixels                    : 15.9
```

We can see a PASS which is “daya darwaza tod do” which might be a password to extract the flag.

Steghide is one such tool which uses password to hide secret files in images. But extracting hidden file for 1000 images might be tedious.

We can use the shell command to perform one steghide command on all the images.

We can use shell command using “export PS1='\$ ''' command. A shell will get created.

Executing below command will extract flag.txt which has the flag.

“ls | while read line; do steghide extract -sf \$line -p "daya darwaza tod do"; done”

Using cat flag.txt will display the flag

Flag is : VishwaCTF{my\_GOD\_D4ya\_tumn3\_t0\_fl4g\_dhund\_liy4....}