Incognito 6.0 ctf

Digital Forensics

Sneaky_Sneaker

Something is sneaking behind the sneakers.

sneaky_sneaker.jpg

```
binwalk -e sneaky_sneaker.jpg
```

> DECIMAL HEXADECIMAL DESCRIPTION
> 0 0x0 JPEG image data, JFIF standard 1.01
> 135997 0x2133D Zip archive data, at least v2.0 to extract, name:
> **h4ck3r_h1n7.wav**
> 929498 0xE2EDA End of Zip archive, footer length: 22

lsb audio stegano from each byte

ref: https://sumit-arora.medium.com/audio-steganography-the-art-of-hiding-secrets-within-earshot-part-2-of-2-c76b1be719b3

```
# Use wave package (native to Python) for reading the received audio file
import wave
song = wave.open("h4ck3r_h1n7.wav", mode='rb')
# Convert audio to byte array
frame_bytes = bytearray(list(song.readframes(song.getnframes())))

# Extract the LSB of each byte
extracted = [frame_bytes[i] & 1 for i in range(len(frame_bytes))]
# Convert byte array back to string
string = "".join(chr(int("".join(map(str,extracted[i:i+8])),2)) for i in range(0,len(ext
# Cut off at the filler characters
decoded = string.split("###")[0]

# Print the extracted text
print("Sucessfully decoded: "+decoded)
song.close()
```

`ictf{wh15p3r5_0f_4_gh05t}`