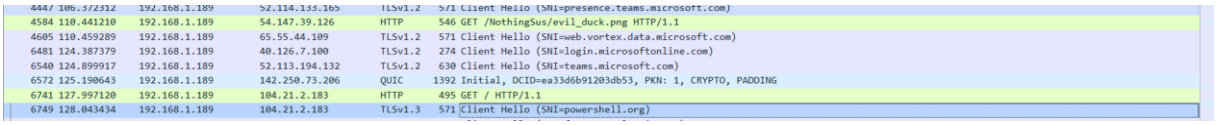
Very very very Hidden

Description :

Finding a flag may take many steps, but if you look diligently it won't be long until you find the light at the end of the tunnel. Just remember, sometimes you find the hidden treasure, but sometimes you find only a hidden map to the treasure. try_me.pcap.

1. Open the file with a pcap analyzer like Wireshark.
2. When I checked the HTTP traffic, I found two requests for PNG files: duck.png and evil_duck.png. I downloaded these files by following these steps: File --> Export Objects --> HTTP --> Save All. I tried using "zsteg" and other steganography tools, but I couldn't reveal anything.
3. I decided to look at the other HTTP requests and the sites that were visited. I searched for this in Wireshark using the filter: (http.request or ssl.handshake.type==1). I found that many sites were visited, including GitHub, Amazon, Microsoft, and finally, PowerShell.org. To be honest, I have doubts about the last one, "PowerShell.org."

Look at this:

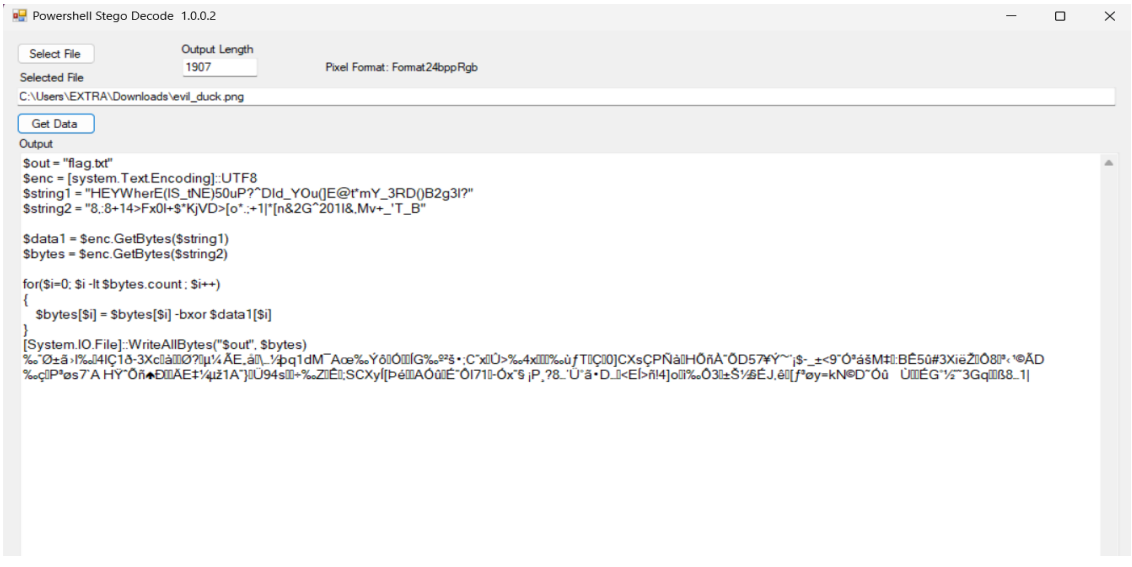


After downloading "evil_duck.png," there is a handshake with the PowerShell.org site.

Hmm, this made me think about the PowerShell script on GitHub called Invoke-PSImage. This script hides data within an image's pixels (more information on GitHub).

So, I searched for a tool that could extract data hidden by Invoke-PSImage, and I found this: https://github.com/PCsXcetra/Decode_PS_Stego. It's a Windows tool that can help us extract the hidden data.

After running the tool and opening the PNG file with it, we found the following script:



Just xor string1 and string2 and you get the flag :
picoCTF{n1c3_job_f1nd1ng_th3_s3cr3t_in_the_im@g3} .