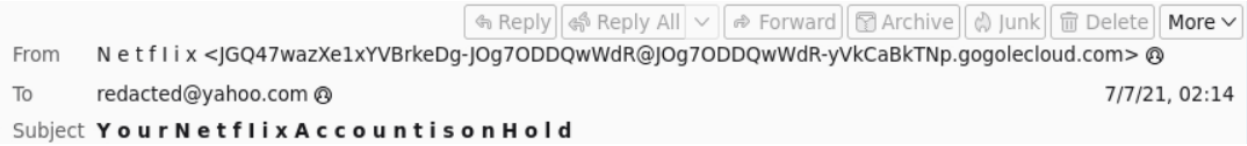
Phishing Analysis Tools 2026/01/12

Phishing case 1

Scenario: You are a Level 1 SOC Analyst. Several suspicious emails have been forwarded to you from other coworkers. You must obtain details from each email for your team to implement the appropriate rules to prevent colleagues from receiving additional spam/phishing emails.

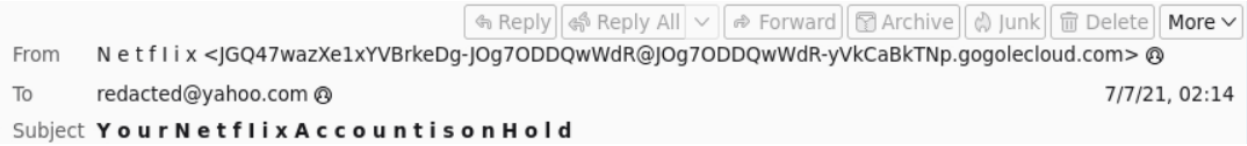
Task: Use the tools discussed throughout this room (or use your own resources) to help you analyze each email header and email body.

Step 1: What brand was this email tailored to impersonate?

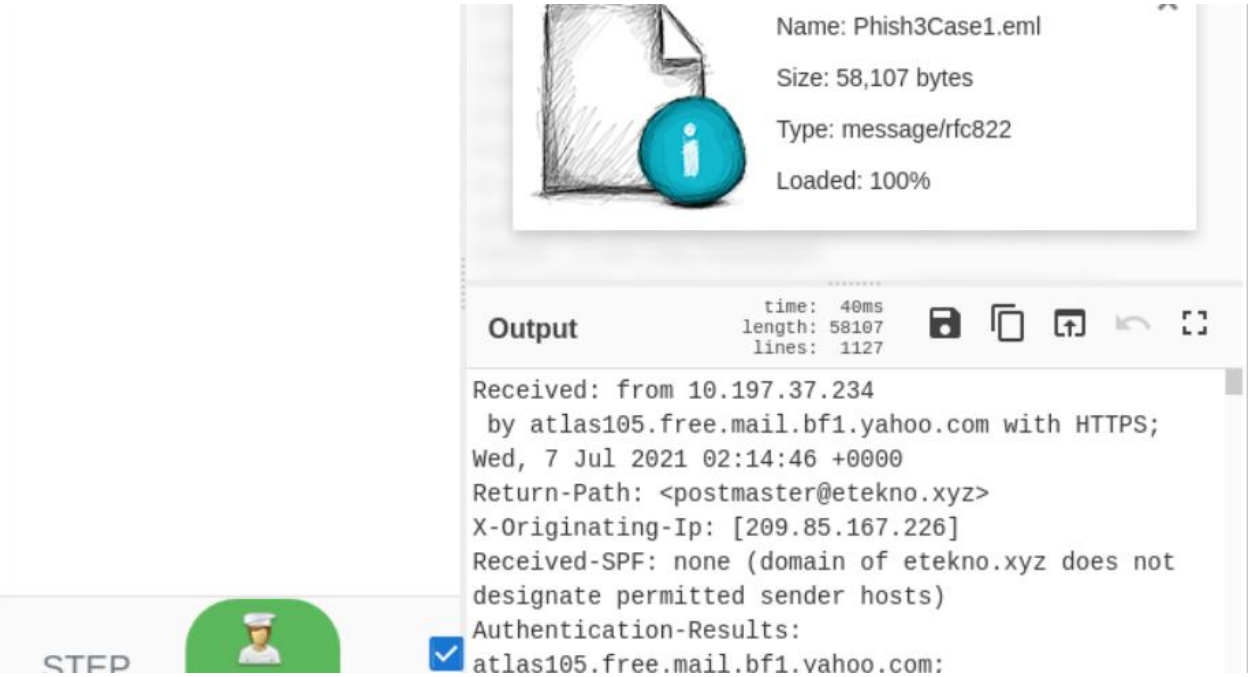


After investigating the header, I was able to see the brand – **Netflix.**

Step 2: What is the From email address?



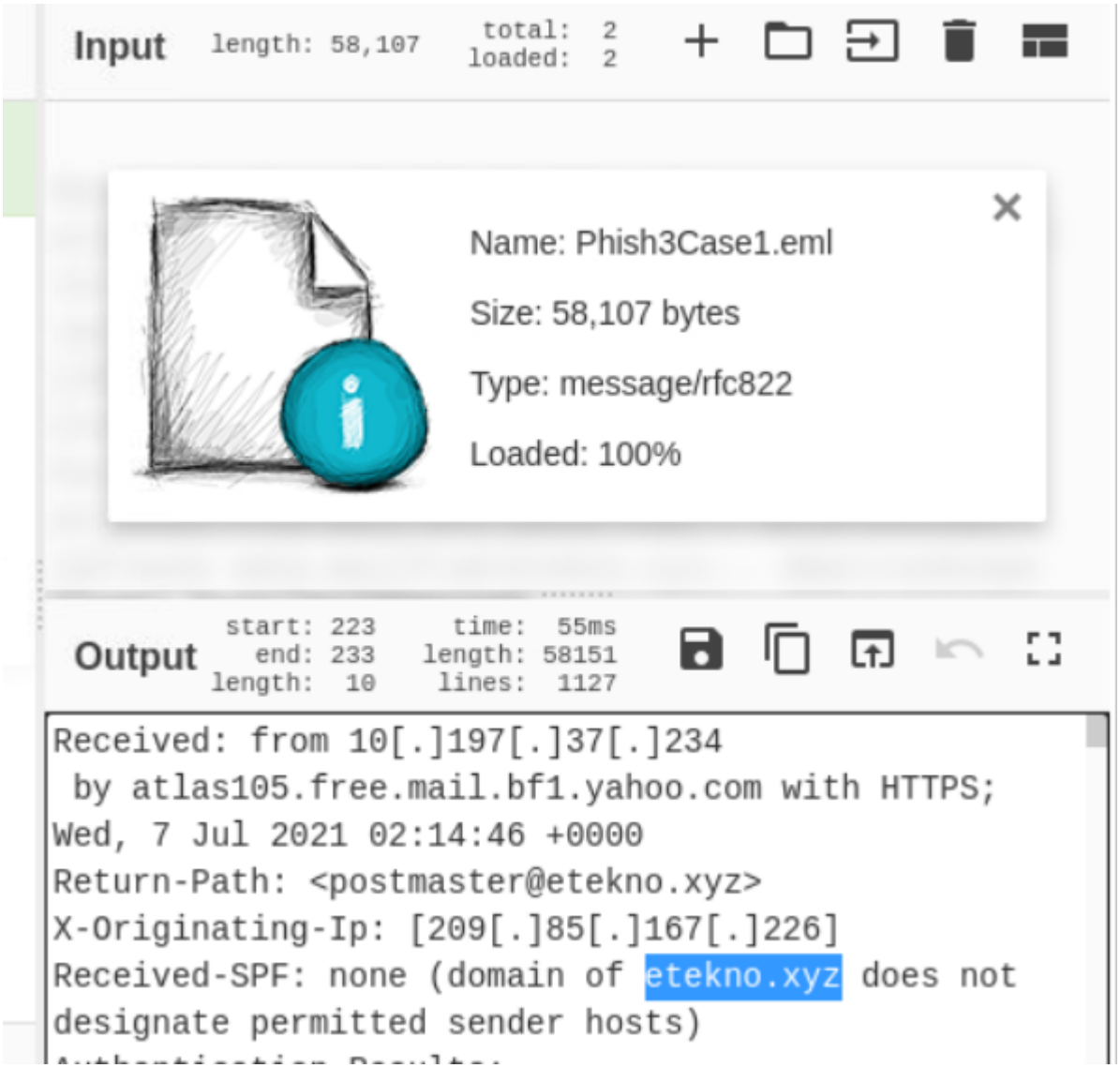
In the header again we can see that the 'From' email address is - **JGQ47wazXe1xYVBrkeDg-JOg7ODDQwWdR@JOg7ODDQwWdR-yVkCaBkTNp.gogolecloud.com**.



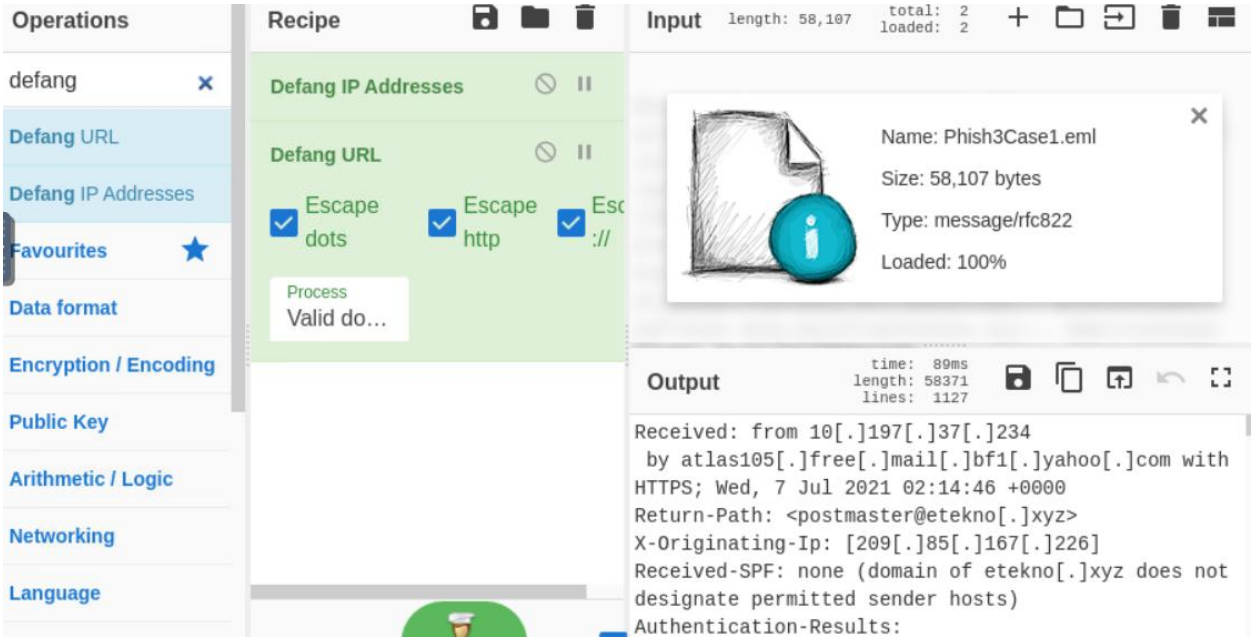
For this I opened up **Cyberchef** and opened up the 'Phish3Case1.eml' file in the input section and then was able to see the IP address - **209.85.167.226**.

I then copied the IP address, cleared the input then entered the IP address only. I then went on the 'Operations' section on the far left and searched for the 'Defang IP Addresses' operationand dragged it to the **Recipe**. In the output I was able to get the defanged output – **209[.]85[.]167[.]226**

Step 3: From what you can gather, what do you think will be a domain of interest? Defang the domain.

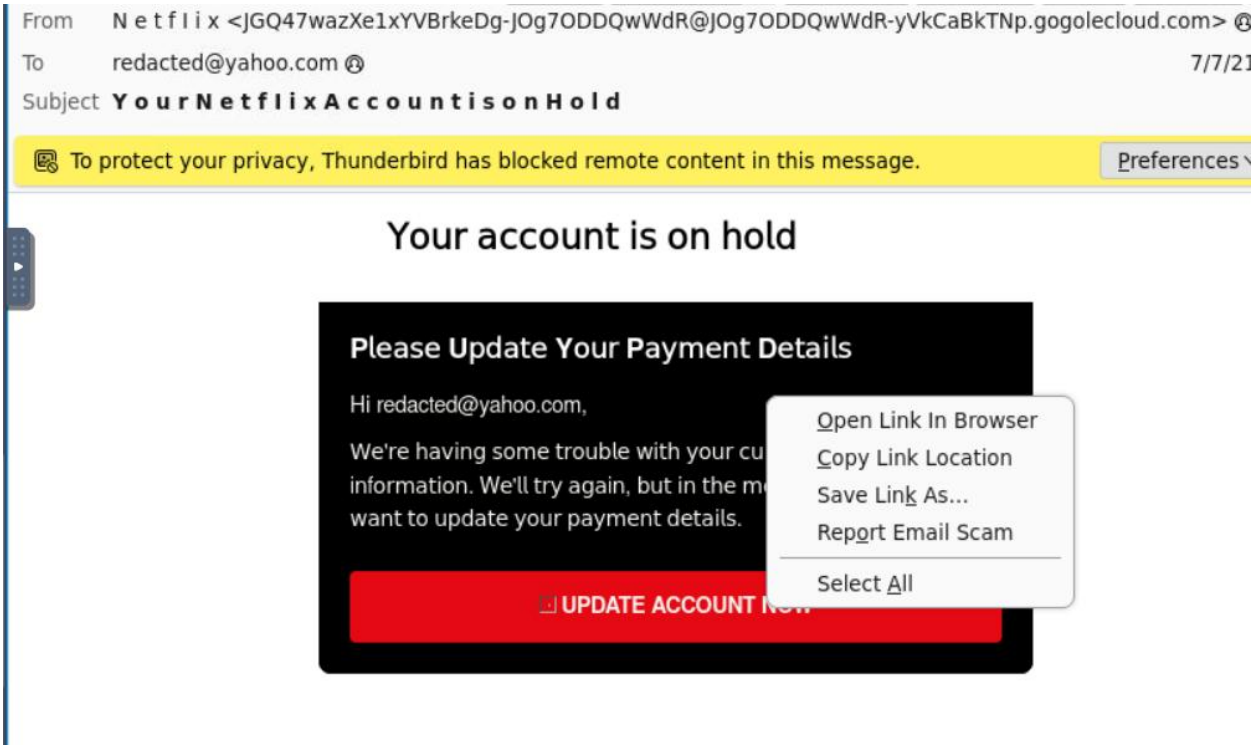


For the following task, I was able to open up the 'Phish3Case1.eml' file again and found the domain in the output – **etekno.xyz**.

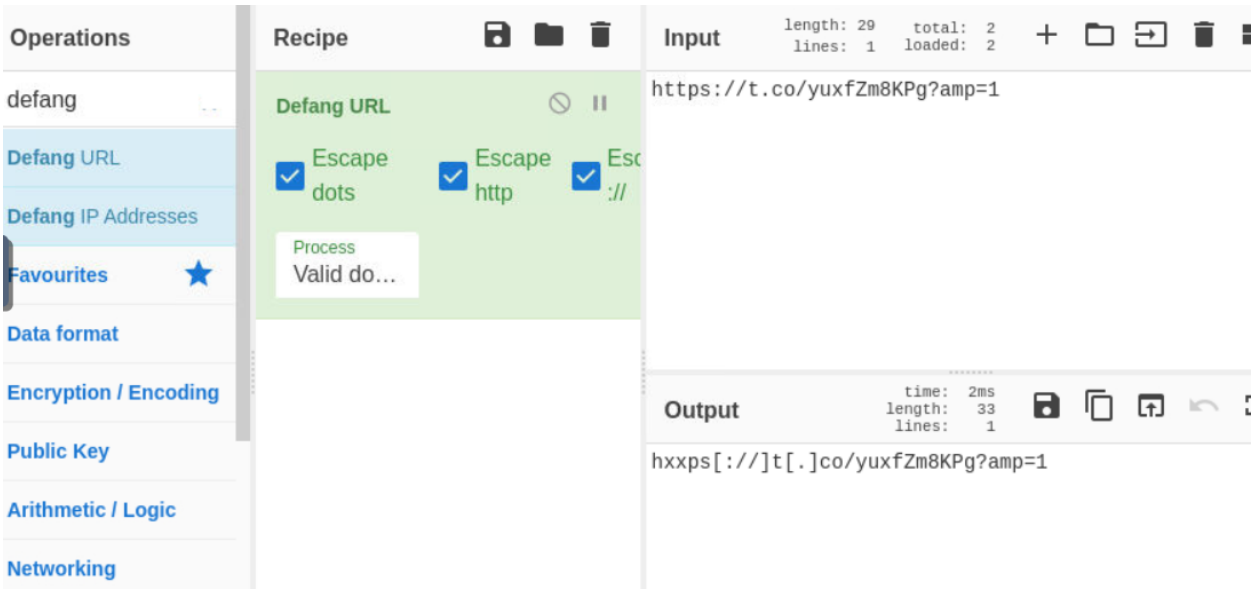


At this point I was surprised at the fact that the previous IP address we were working with had been defanged. The operations seem to work with the contents from outside the file. I added the 'Defang URL' operation and was able to defang the domain - **etekno[.]xyz**.

Step 4: What is the shortened URL? Defang the URL.



For this I opened up the email on outlook, right clicked on the update… button and clicked ‘Copy link location’.



I opened up **Cyberchef** once again and pasted the link in the input section. I looked on the left side again and searched for the 'Defang URL' operation and dragged it to the **Recipe** section and only then I was able to get the defanged output - **hxxps[://]t[.]co/yuxfZm8KPg?amp==1**.

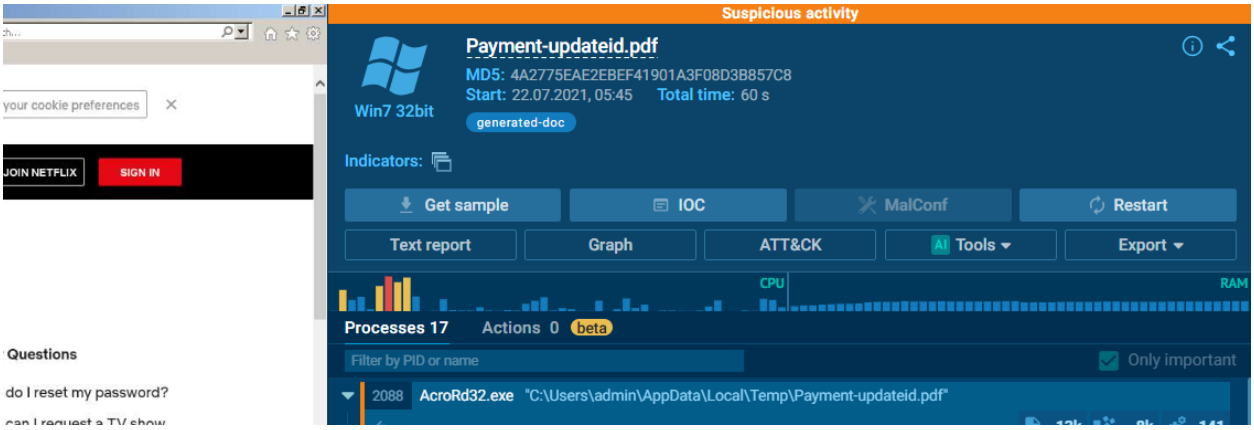
Phishing case 2

Scenario: You are a Level 1 SOC Analyst. Several suspicious emails have been forwarded to you from other coworkers. You must obtain details from each email for your team to implement the appropriate rules to prevent colleagues from receiving additional spam/phishing emails.

A malicious attachment from a phishing email inspected in the previous Phishing Room was uploaded to Any Run for analysis.

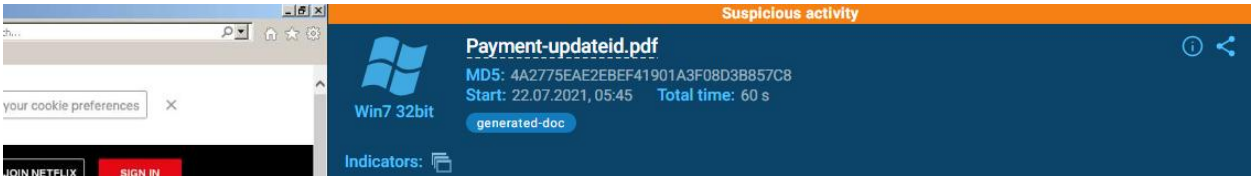
Task: Investigate the analysis and answer the questions below.

Step 1: What does AnyRun classify this email as?



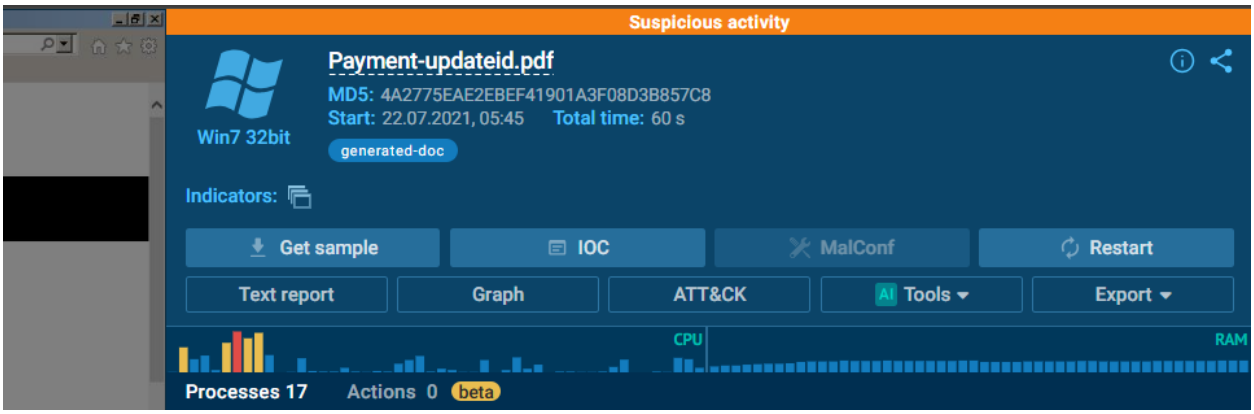
I opened up AnyRun and at the top right I was able to find that it's classified as – **Suspicious activity**.

Step 2: What is the name of the PDF file?



Right under the classification of the email, I found the name of the PDF file – **Payment-updateid.pdf**.

Step 3: What is the SHA 256 hash for the PDF file?



For this I clicked on 'Text report'.

General Info

Add for printing

File name:	Payment-updateid.pdf
Full analysis:	https://app.any.run/tasks/8bfd4c58-ec0d-4371-bfeb-52a334b69f59
Verdict:	Suspicious activity
Analysis date:	July 22, 2021 at 05:45:38
OS:	Windows 7 Professional Service Pack 1 (build: 7601, 32 bit)
Tags:	generated-doc
Indicators:	
MIME:	application/pdf
File info:	PDF document, version 1.7
MD5:	4A2775EAE2EBEF41901A3F08D3B857C8
SHA1:	8B3439F5EA2F20C6BE329C4C6B8EAA9CC439233B
SHA256:	CC6F1A04B10BCB168AEEC8D870B97BD7C20FC161E8310B5BCE1AF8ED420E2C24
SSDEEP:	3072:eiiINpcqF7c/DTmHbARHwHfScBb/jKPNsxcQ0XLN40/yU:piTpcqF7IPmHbGHwHfSEg2xcVXLNP/h

ANY.RUN is an interactive service which provides full access to the guest system. Information in this report could be distorted by user actions and is provided for user acknowledgement as it is. ANY.RUN does not guarantee maliciousness or safety of the content.

After opening up the document I skimmed through each line looking for the SHA256 and I found it - **CC6F1A04B10BCB168AEEC8D870B97BD7C20FC161E8310B5BCE1AF8ED420E2C24**.

Step 4: What two IP addresses are classified as malicious? Defang the IP addresses. (answer: **IP_ADDR,IP_ADDR**)

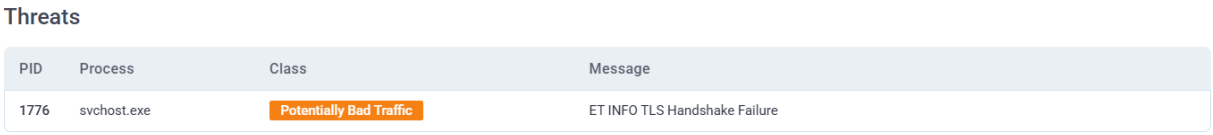
Connections

PID	Process	IP	Domain	ASN	CN	Reputation
2088	AcroRd32.exe	2.16.107.24:443	acroipm2.adobe.com	Akamai International B.V.	–	malicious
1776	svchost.exe	2.16.107.83:443	ardownload3.adobe.com	Akamai International B.V.	–	malicious
3812	AdobeARM.exe	2.16.107.83:443	ardownload3.adobe.com	Akamai International B.V.	–	malicious

I scrolled down the page to connections and I found the IP addresses – '2.16.107.24' and '2.16.107.83'.

I opened up **Cyberchef**. I copied and pasted both IP addresses in the input section on the right, went to the left side and looked for the 'Defang IP Addresses' operation. I dragged it to the **Recipe** section and clicked **'Bake!**'. The two defanged IP addresses were - **2[.]16[.]107[.]24,2[.]16[.]107[.]83**.

Step 5: What Windows process was flagged as **Potentially Bad Traffic**?



I scrolled further down to 'Threats' and the Process flagged as **Potentially Bad Traffic - svchost.exe.**

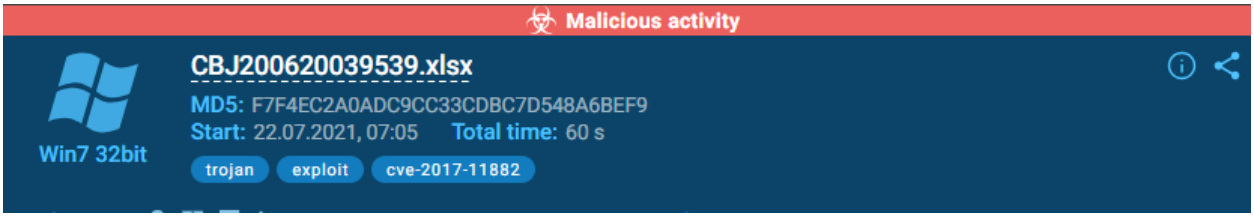
Phishing case 3

Scenario: You are a Level 1 SOC Analyst. Several suspicious emails have been forwarded to you from other coworkers. You must obtain details from each email for your team to implement the appropriate rules to prevent colleagues from receiving additional spam/phishing emails.

A malicious attachment from a phishing email inspected in the previous Phishing Room was uploaded to Any Run for analysis.

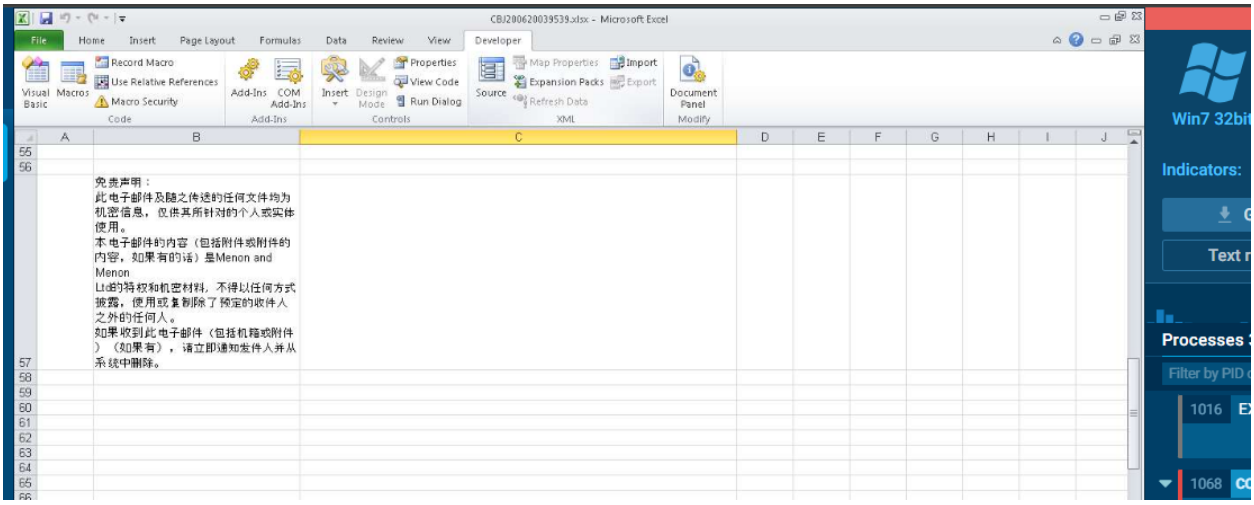
Task: Investigate the analysis and answer the questions below.

Step 1: What is this analysis classified as?



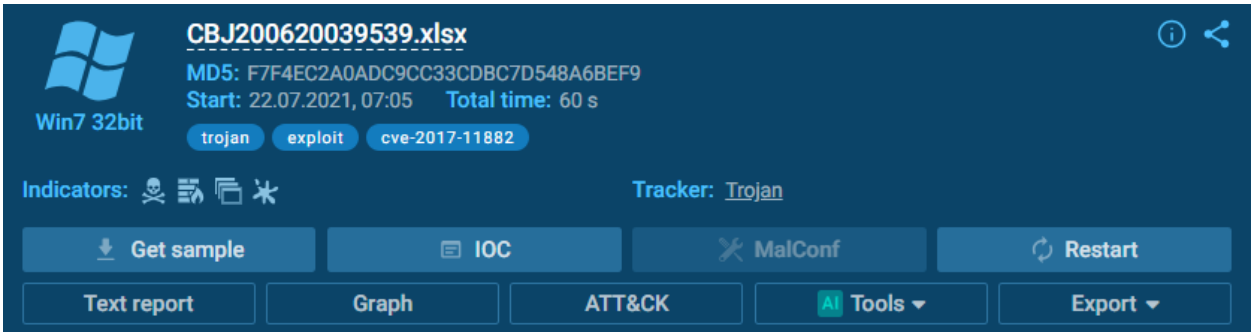
I opened up AnyRun. Looking at the top right, I identified the analysis classified – **Malicious activity**.

Step 2: What is the name of the Excel file?



I identified the name of the file after navigating to the screenshots on AnyRun - **CBJ200620039539.xlsx**.

Step 3: What is the SHA 256 hash for the file?



I opened up Text report.

General Info

Add for printing

File name:	CBJ200620039539.xlsx
Full analysis:	https://app.any.run/tasks/82d8adc9-38a0-4f0e-a160-48a5e09a6e83
Verdict:	Malicious activity
Threats:	Trojan

Trojans are a group of malicious programs distinguished by their ability to masquerade as benign software. Depending on their type, trojans possess a variety of capabilities, ranging from maintaining full remote control over the victim's machine to stealing data and files, as well as dropping other malware. At the same time, the main functionality of each trojan family can differ significantly depending on its type. The most common trojan infection chain starts with a phishing email.

Malware Trends Tracker >>>

Analysis date:	July 22, 2021 at 07:05:05
OS:	Windows 7 Professional Service Pack 1 (build: 7601, 32 bit)
Tags:	trojan exploit cve-2017-11882
Indicators:	
MIME:	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet
File info:	Microsoft Excel 2007+
MD5:	F7F4EC2A0ADC9CC33CDBC7D548A6BEF9
SHA1:	D460315F92AA3DCA63617431883834ED94C09F45
SHA256:	5F94A66E0CE78D17AFC2DD27FC17B44B3FFC13AC5F42D3AD6A5DCFB36715F3EB
SSDEEP:	384:jhzRPm16A+fEAgjnjP5O5ykBmx4ml/NhQqhKZLOU2pukVnF5:NzsAMpE5TsWGHhKZ+

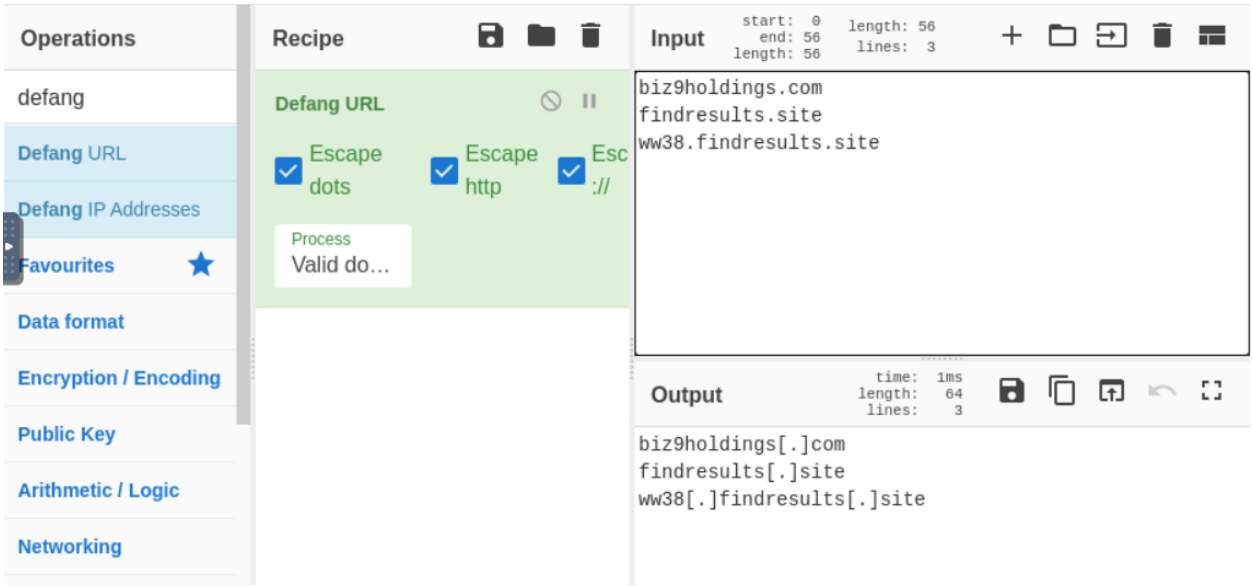
In the document, I swiftly skimmed through to find the SHA256 - **5f94a66e0ce78d17afc2dd27fc17b44b3ffc13ac5f42d3ad6a5dcfb36715f3eb**.

Step 4: What domains are listed as malicious? Defang the URLs & submit answers in alphabetical order. (answer: **URL1,URL2,URL3**)

Connections

PID	Process	IP	Domain	ASN	CN	Reputation
1068	EQNEDT32.EXE	204.11.56.48:80	biz9holdings.com	Confluence Networks Inc	VG	malicious
1068	EQNEDT32.EXE	103.224.182.251:80	findresults.site	Trellian Pty. Limited	AU	suspicious
1068	EQNEDT32.EXE	75.2.11.242:80	ww38.findresults.site	AT&T Services, Inc.	US	malicious

I scrolled down to connections and Identified 3 malicious domains namely - **biz9holdings.com, findresults.site, ww38.findresults.site**.



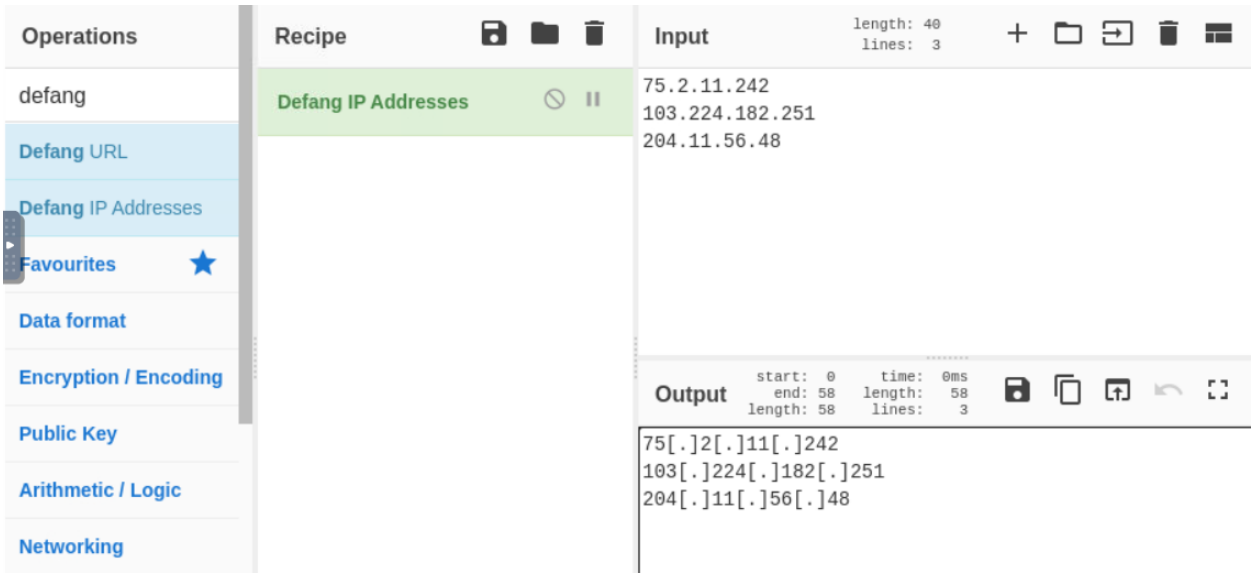
I copied them and pasted them into **Cyberchef** where I navigated to the left side of the page to discover the 'Defang URL' operation and dragged and dropped in the **Recipe** section. I was then able to get the defanged Output - **biz9holdings[.]com, findresults[.]site, ww38[.]findresults[.]site**.

Step 5: What IP addresses are listed as malicious? Defang the IP addresses & submit answers from lowest to highest. (answer: **IP1,IP2,IP3**)

Connections

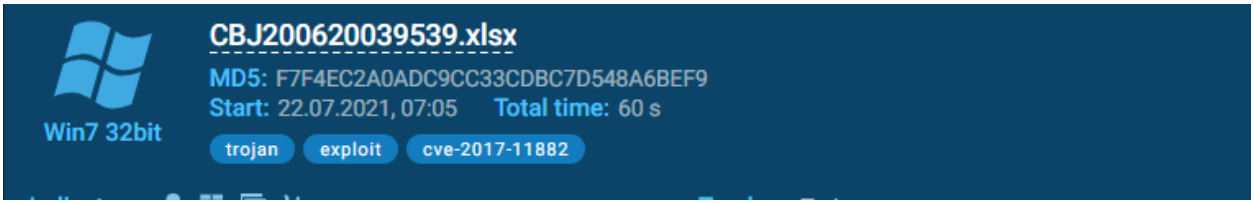
PID	Process	IP	Domain	ASN	CN	Reputation
1068	EQNEDT32.EXE	204.11.56.48:80	biz9holdings.com	Confluence Networks Inc	VG	malicious
1068	EQNEDT32.EXE	103.224.182.251:80	findresults.site	Trellian Pty. Limited	AU	suspicious
1068	EQNEDT32.EXE	75.2.11.242:80	ww38.findresults.site	AT&T Services, Inc.	US	malicious

I copied all the IP Addresses - **75.2.11.242, 103.224.182.251, 204.11.56.48**.



I opened up **Cyberchef** once again and changed the recipe to the 'Defang IP Addresses' operation and Baked it. I was then able to get the defanged IP addresses - **75[.]2[.]11[.]242,103[.]224[.]182[.]251,204[.]11[.]56[.]48**.

Step 6: What vulnerability does this malicious attachment attempt to exploit?



It attempts to exploit the – **cve-2017-11882** vulnerability.

Summary Conclusion

This exercise provided comprehensive, hands-on experience with phishing analysis tools and workflows commonly used by Level 1 SOC Analysts. Across all three phishing cases, I applied systematic email analysis techniques to extract actionable indicators of compromise (IOCs), including spoofed sender details, malicious domains, shortened URLs, IP addresses, file hashes, and associated processes.

In Phishing Case 1, I analyzed email headers and body content to identify brand impersonation, suspicious sender infrastructure, and malicious links. By using CyberChef to safely defang domains, URLs, and IP addresses, I demonstrated secure handling of phishing artifacts and produced indicators suitable for detection and blocking rules.

Phishing Cases 2 and 3 focused on attachment-based threats analyzed through AnyRun. I interpreted sandbox classifications, extracted file metadata and SHA-256 hashes, identified malicious network connections, and observed flagged system processes and exploit behavior. These cases highlighted the importance of correlating dynamic analysis results with static indicators to fully understand attacker intent and impact.

Overall, this activity strengthened my ability to use industry-standard tools such as CyberChef and AnyRun to investigate phishing threats, document findings clearly, and support SOC teams with reliable, defanged indicators for prevention and response.