

SOC282 - Phishing Alert - Deceptive Mail Detected

[Let's Defend – Write-up]

The primary objective of this investigation is to simulate the end-to-end workflow of a SOC Analyst when responding to a high-priority security alert. This exercise focuses on understanding the technical nuances of a phishing attack, executing the predefined Incident Response Playbook, and determining the necessary remediation steps to protect the organizational environment.

| Start Investigation

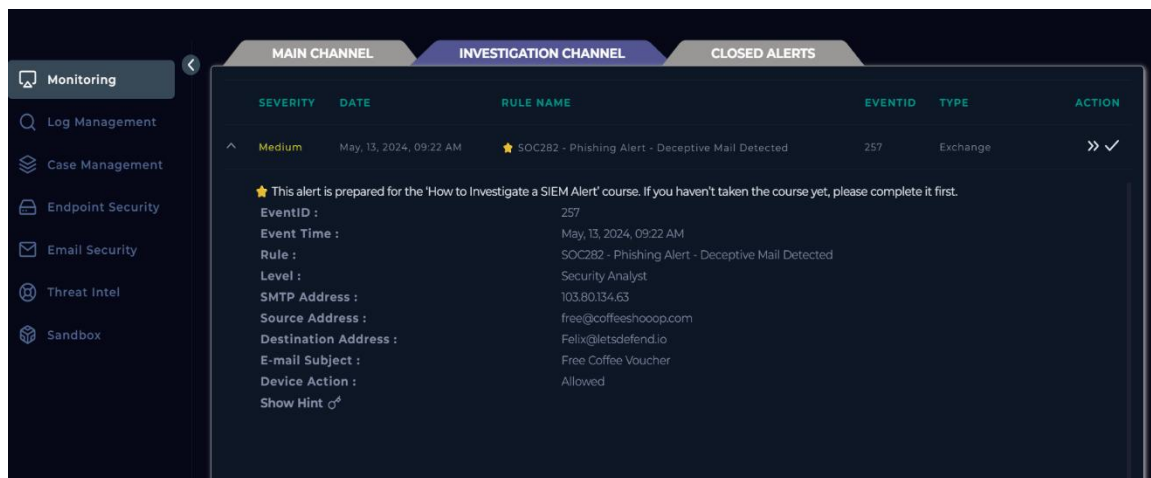


Figure 1: SOC282 - Phishing Alert - Deceptive Mail Detected Alert.

At the beginning of the analysis, I reviewed the alert details and identified the following information:

- **Alert Type:** Phishing Alert - Deceptive Mail Detected.
- **Event ID:** 257.
- **Event Time:** May 13, 2024, 09:22 AM.
- **Sender (Source Address):** free@coffeeshooop.com.
- **Receiver (Destination Address):** Felix@letsdefend.io.
- **E-mail Subject:** Free Coffee Voucher.
- **SMTP Address:** 103.80.134.63.
- **Device Action:** Allowed.

This information will help me during the analysis to track the origin and impact of the threat. Therefore, I want to take action on it and link the alert by selecting Create Case. This action transitions the investigation from a pending alert to an active incident, allowing for formal documentation and playbook execution.

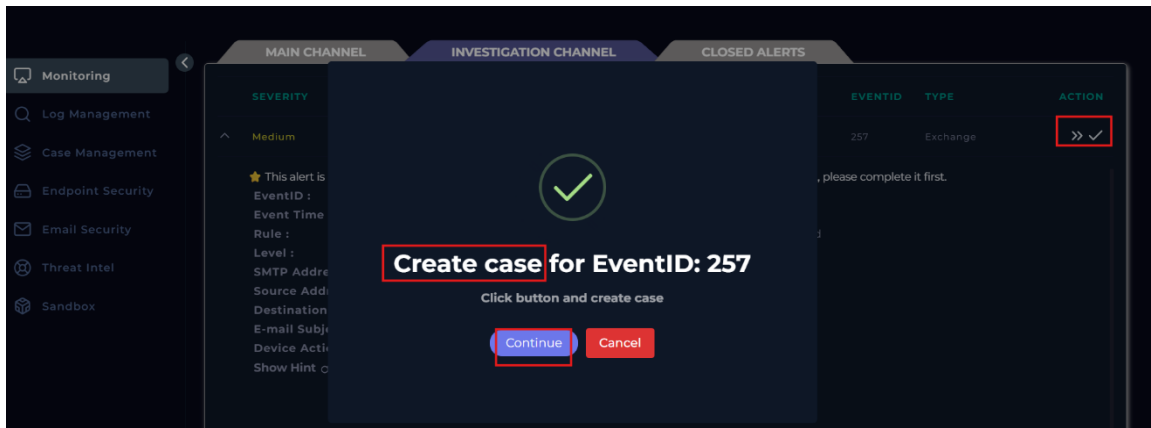


Figure 2: Create case.

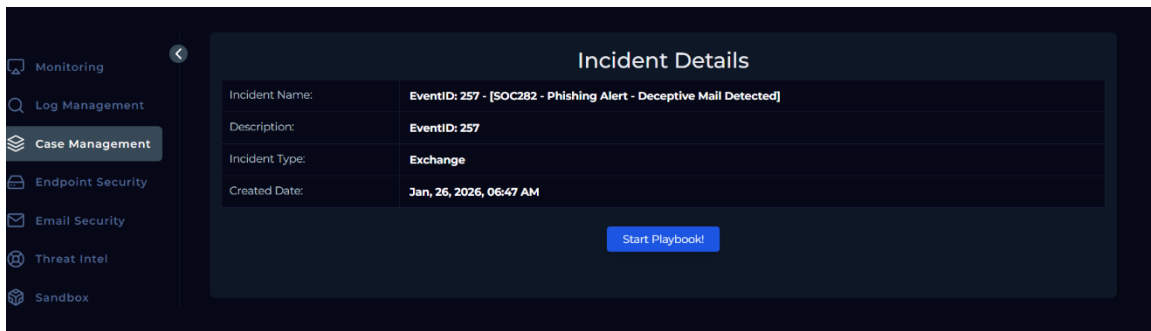


Figure 3: start investigation using Playbook.

After clicking Start Playbook, I will address the series of investigative questions provided to complete the analysis based on the established playbook.

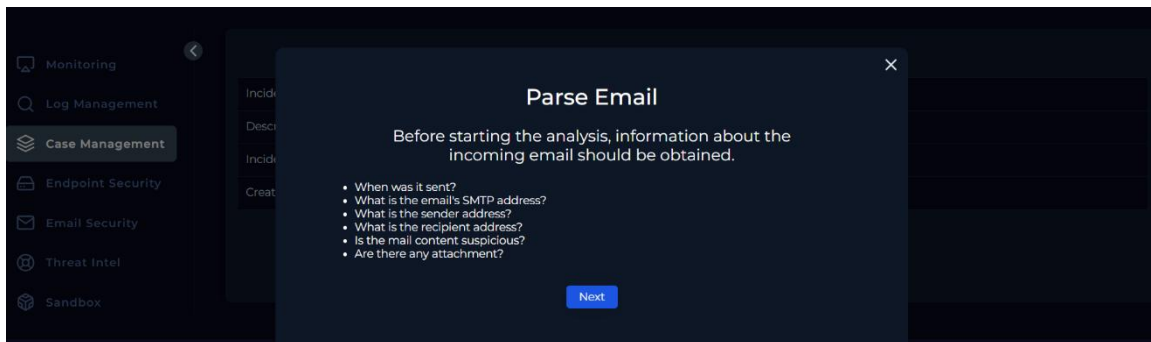


Figure 4: First Questions.

The answers to the first four questions are found directly within the alert notice:

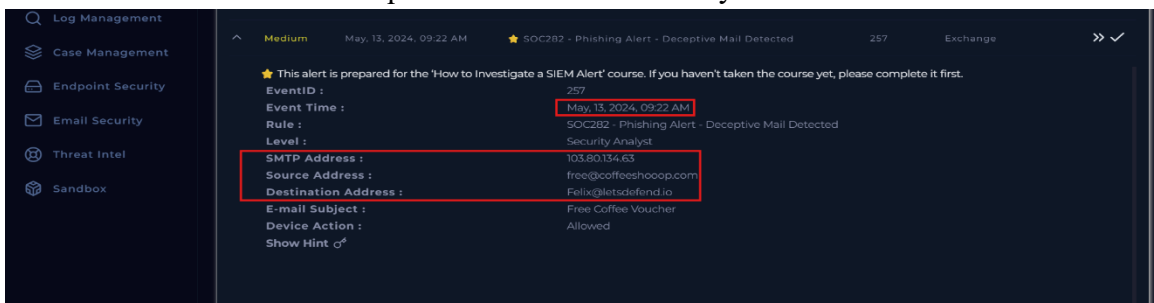


Figure 5: The answers.

1. When was it sent?
 - **Sent Date:** May 13, 2024, 09:22 AM.
2. What is the email's SMTP address?
 - **SMTP Address:** 103.80.134.63.
3. What is the sender address?
 - **Sender Address:** free@coffeeshoop.com.
4. What is the recipient address?
 - **Recipient Address:** Felix@letsdefend.io.

To answer the remaining questions, the next step is to examine the Email Security section to analyze the specific details of the message.

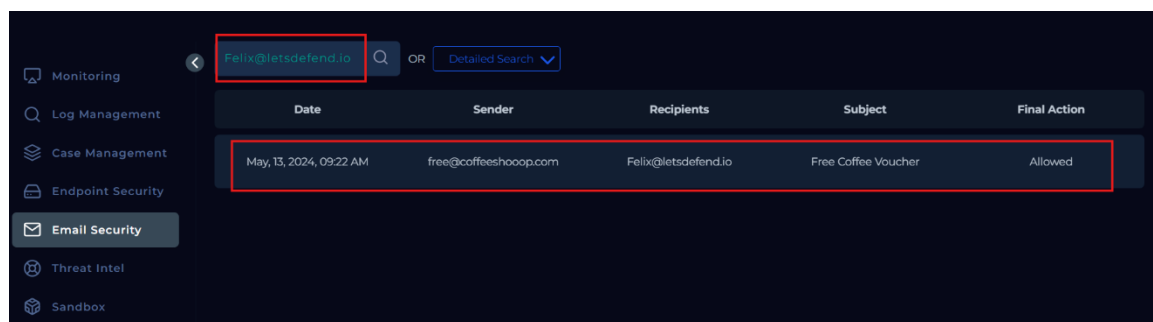


Figure 6: The Email sent.

I searched the Email Security section for the recipient's address to review the specific email messages associated with it.

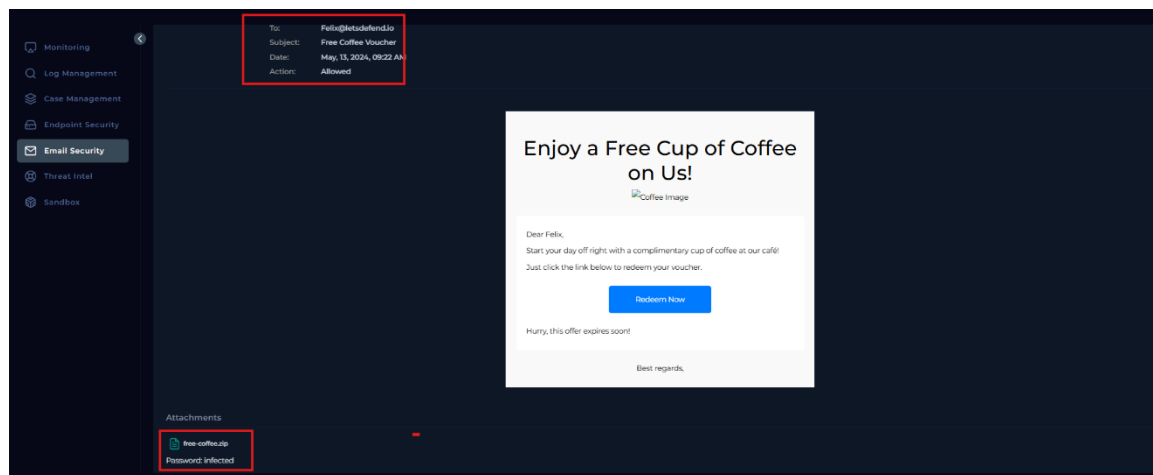


Figure 7: Email content.

After reviewing the **Email Security** section, I found that an email sent to **Felix@letsdefend.io** contained both a "Redeem Now" link and a malicious attachment named **free-coffee.zip** (password: **infected**).

5. Is the mail content suspicious?

- Yes, the mail content is suspicious
6. Are there any attachment?
- Yes, there is an attachment named **free-coffee.zip**

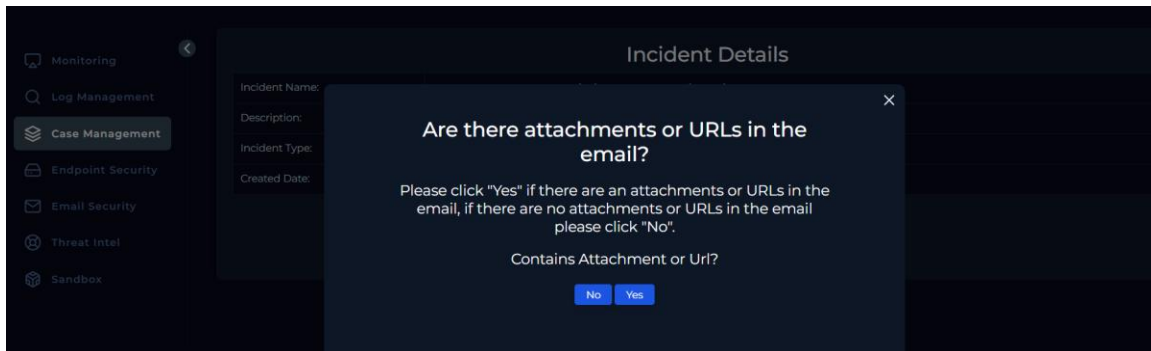


Figure 8: Next Playbook Question.

Answer: Yes

- **Attachment Found:** The email contains an attached file titled **free-coffee.zip** located at the bottom of the message.
- **URL Found:** The email body includes a "Redeem Now" button that links to an external download URL.
- **Suspicious Indicator:** The attachment is password-protected with the word **"infected"**, which is a high-risk indicator often used to conceal malicious content from automated scanners.

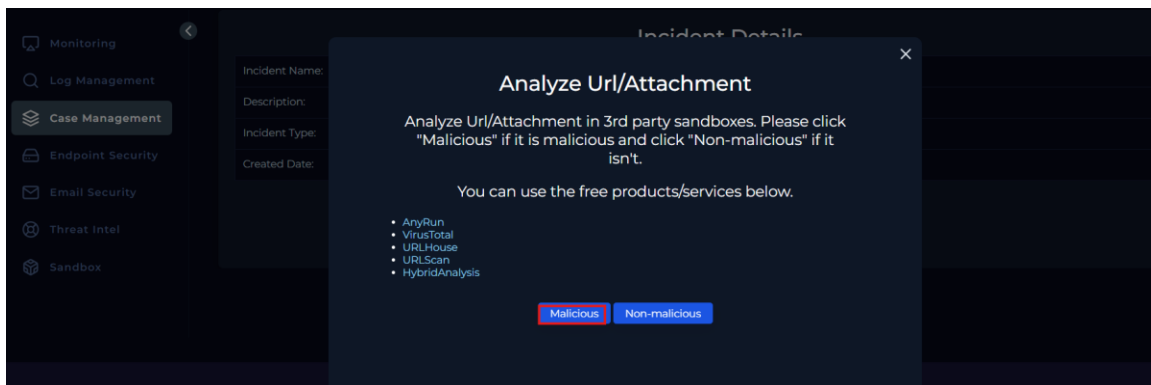


Figure 9: Next Playbook Question.

Yes, This URL is Malicious.

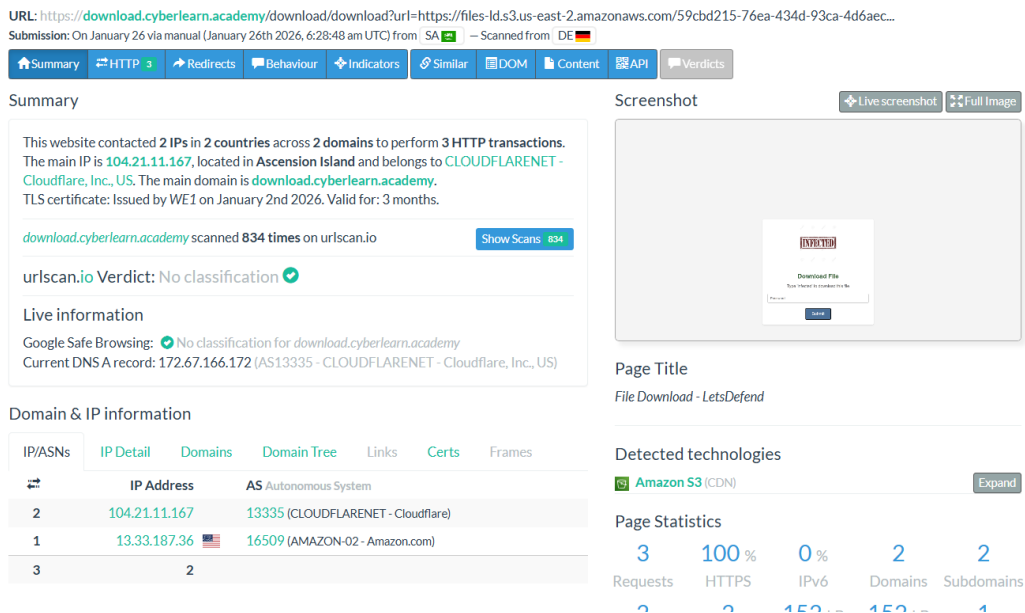


Figure 10: urlscan result.

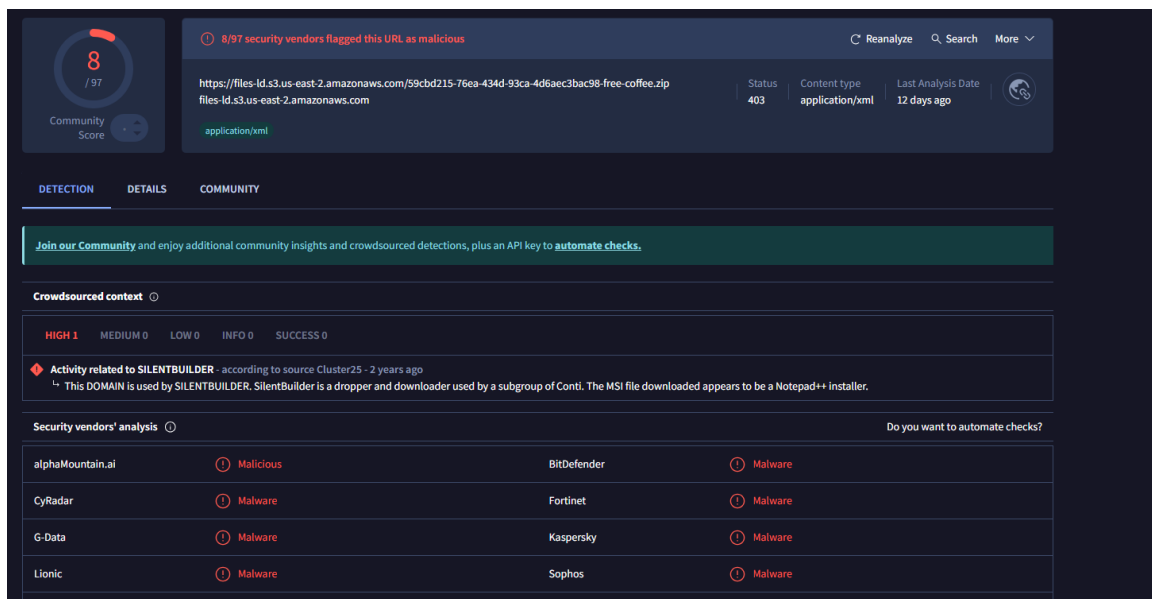


Figure 11: Virstotal result.

Third-party analysis via VirusTotal and urlscan.io confirms the URL is malicious. The link directs to an Amazon S3 bucket to download a password-protected ZIP file. Furthermore, VirusTotal flagged the domain associated with 'SILENTBUILDER,' a known downloader used by cybercrime groups.

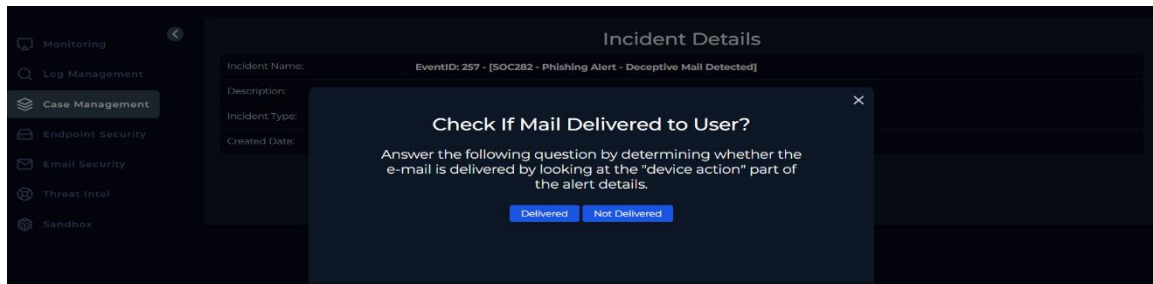


Figure 12: Next Playbook Question.

Email is considered 'Delivered' if the Device Action is marked as 'Allowed,' indicating it bypassed security filters and reached the user's inbox; however, if the action is 'Deleted,' 'Blocked,' or 'Quarantined,' it means the security system successfully intercepted the threat, and the status should be marked as 'Not Delivered'.



Figure 13: The Alert Content.

Based on the investigation, the email was successfully Delivered. This is confirmed by the 'Device Action' in the alert details, which is set to 'Allowed,' indicating the security system did not block the message.

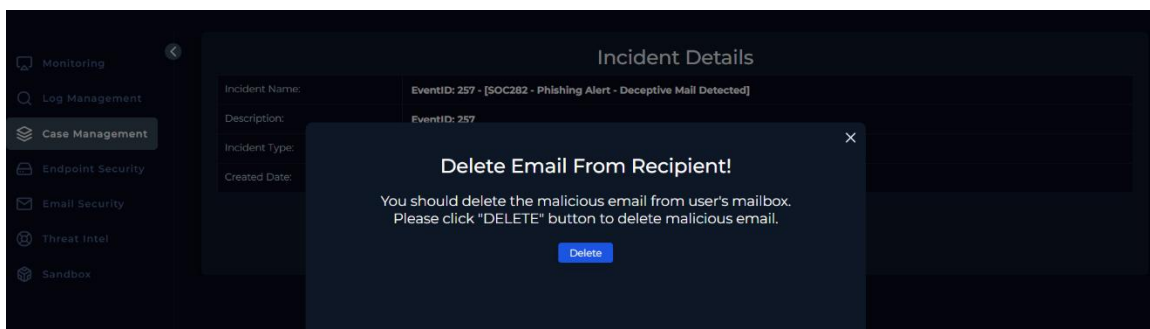


Figure 14: Next Playbook Question.

Since the email was confirmed as Malicious and was successfully Delivered to the inbox, we must now proceed to the 'Email Security' section to delete the message and prevent the user from interacting with it.

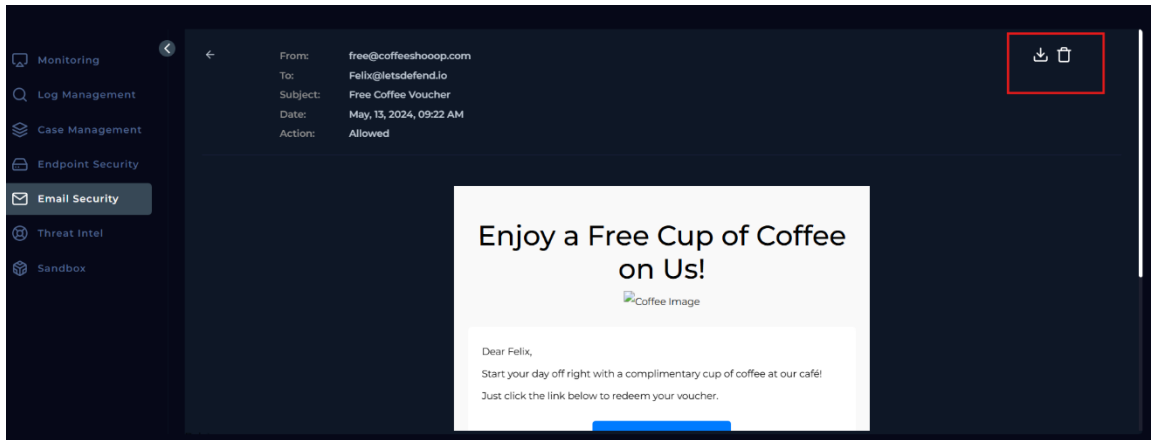


Figure 15: Delete Email.

We successfully deleted the email.

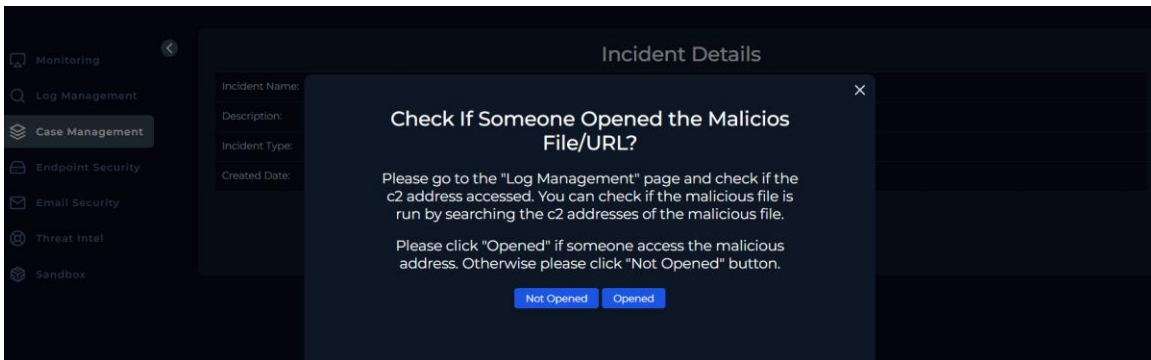


Figure 16: Next Playbook Question.

To investigate if the malicious link or file was accessed, I navigated to 'Endpoint Security' and searched for Felix's host details. I successfully identified Felix's IP address, which I will now use to cross-reference with 'Log Management' to check for any connections to the identified C2 addresses.

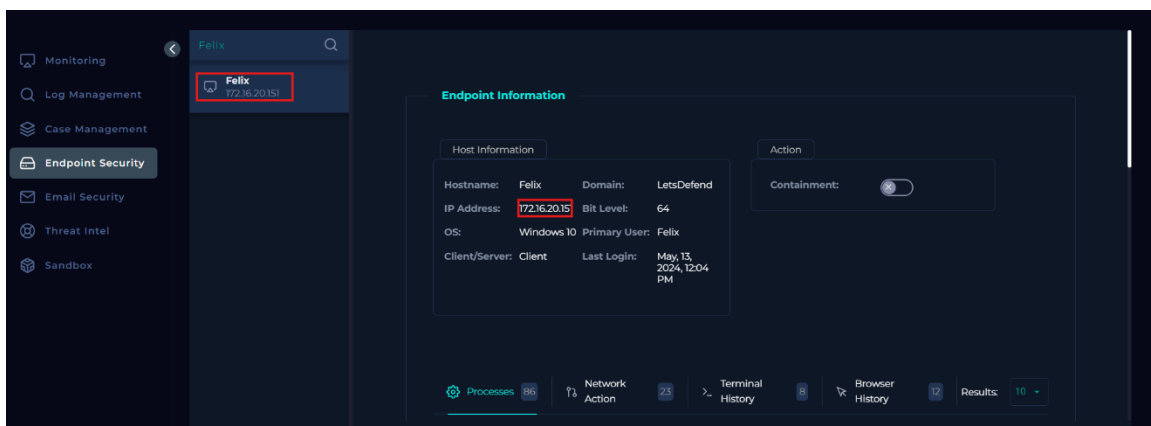


Figure 17: Endpoint Security Content.

Felix's IP (172.16.20.151)

DATE	TYPE	SRC ADDRESS	SRC PORT	DEST. ADDRESS	DEST. PORT	RAW
May, 13, 2024, 01:01 PM	Firewall	172.16.20.151	49868	37.120.233.226	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49853	127.0.0.1	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49851	37.120.233.226	3451	🔍
May, 13, 2024, 12:59 PM	Proxy	172.16.20.151	49842	3.5.129.143	443	🔍

Figure 18: Log Management Content.

After checking the Log Management for Felix's IP (172.16.20.151), I discovered network logs from the same date as the initial incident. While these logs show active outbound connections.

DATE	TYPE	SRC ADDRESS	SRC PORT	DEST. ADDRESS	DEST. PORT	RAW
May, 13, 2024, 01:01 PM	Firewall	172.16.20.151	49868	37.120.233.226	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49853	127.0.0.1	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49851	37.120.233.226	3451	🔍
May, 13, 2024, 12:59 PM	Proxy	172.16.20.151	49842	3.5.129.143	443	🔍

RAW LOG

Source IP: 172.16.20.151
Destination IP: 37.120.233.226
Destination Port: 3451
Protocol: TCP
Action: FW Permit
Process: Coffee.exe

Figure 19: First Alert Check.

Investigation of **Felix's IP (172.16.20.151)** in the logs confirmed the malicious file was **Opened**. The **RAW LOG** shows a process named '**Coffee.exe**' successfully connected to an external IP, proving execution on the host.

DATE	TYPE	SRC ADDRESS	SRC PORT	DEST. ADDRESS	DEST. PORT	RAW
May, 13, 2024, 01:01 PM	Firewall	172.16.20.151	49868	37.120.233.226	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49853	127.0.0.1	3451	🔍
May, 13, 2024, 01:00 PM	Firewall	172.16.20.151	49851	37.120.233.226	3451	🔍
May, 13, 2024, 12:59 PM	Proxy	172.16.20.151	49842	3.5.129.143	443	🔍

RAW LOG

Date: 2024-05-13 12:59:44
Device Action: Allowed
User: Felix
URL: https://files-id.s3.us-east-2.amazonaws.com/59cbd215-76ea-434d-93ca-4d6aec3bac98-free-coffee.zip
Process: chrome.exe

Figure 20: Second Alert Check.

The Proxy logs confirm that the user (Felix) accessed the malicious link using 'chrome.exe', which resulted in the successful download of the 'free-coffee.zip' file.

So, to investigate the destination IP (37.120.233.226) found in the logs, I searched for it in the 'Threat Intel' section to identify any known malicious associations or C2 activity.

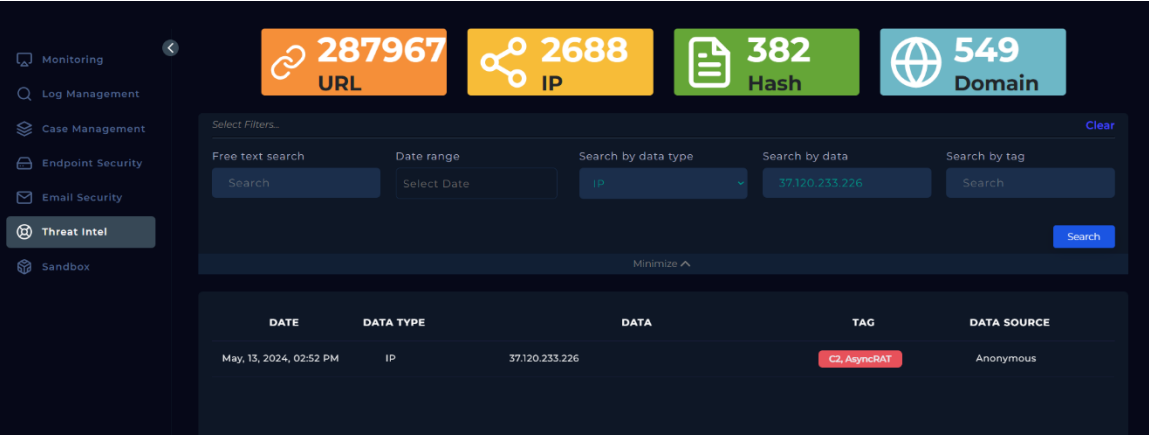


Figure 21: Threat intel result.

I searched the suspicious IP address (\$37.120.233.226\$) in the Threat Intel section. The results confirmed it is a known malicious address, tagged as a C2 server for AsyncRAT.

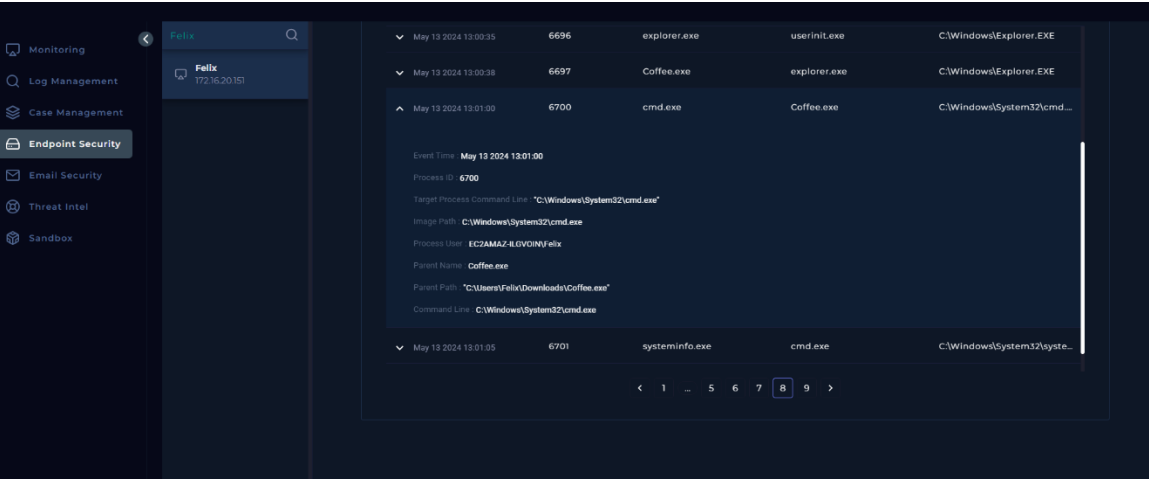


Figure 22: Processes.

Further investigation in 'Endpoint Security' confirms that the malicious process 'Coffee.exe' (PID: 6697) was executed by Felix. This process subsequently triggered 'cmd.exe' to run system reconnaissance commands like 'systeminfo.exe', proving active post-exploitation activity on the host.

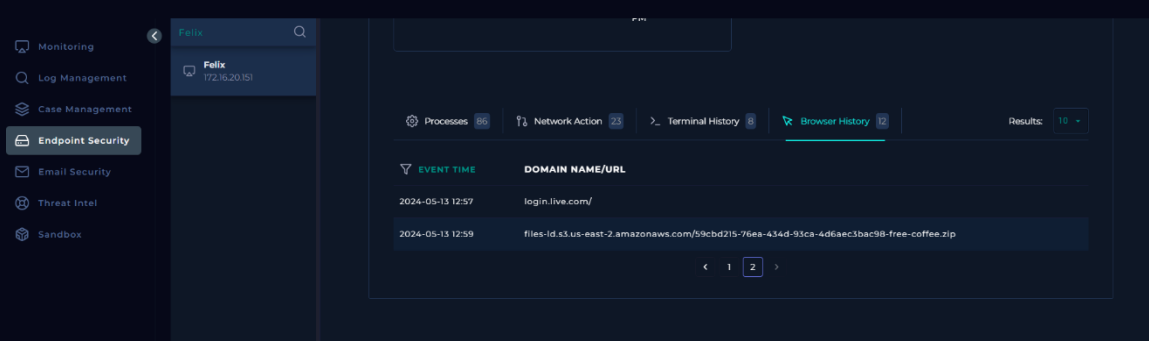


Figure 23: Browser History.

In 'Endpoint Security', I confirmed the malicious process 'Coffee.exe' was executed from Felix's downloads folder. Browser history also shows the user accessed the S3 bucket link at 12:59 to download the file.

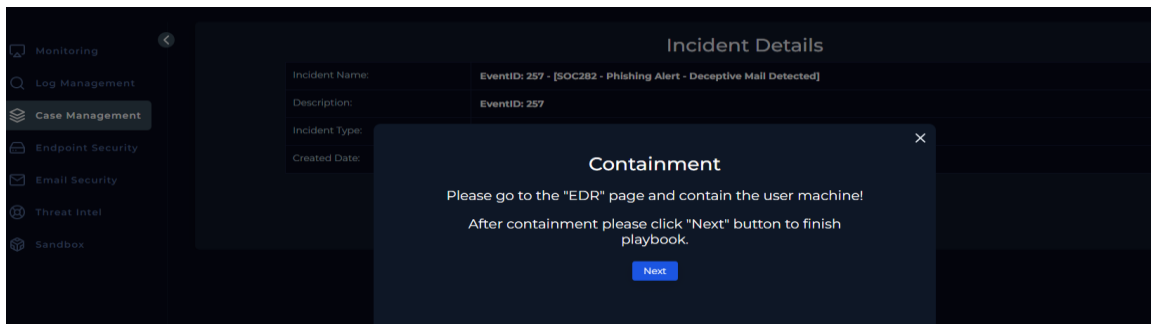


Figure 24: Next Playbook Question.

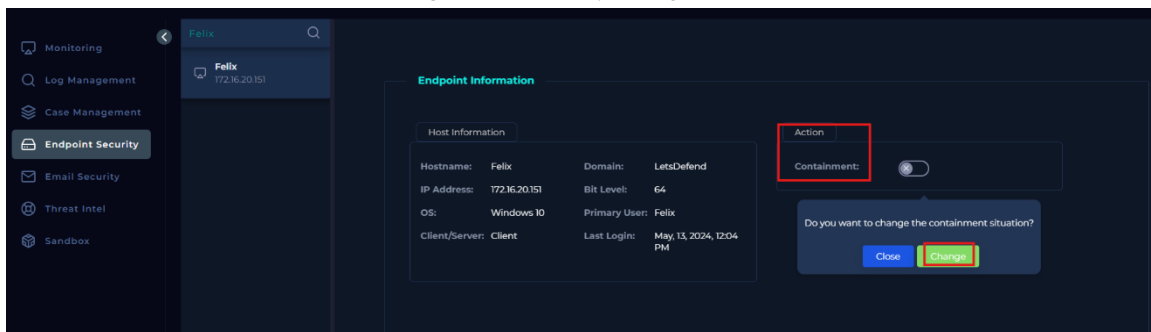


Figure 25: Containment action.

To prevent further damage, I navigated to the 'Endpoint Security' tab and initiated the containment process for Felix's host (172.16.20.151).

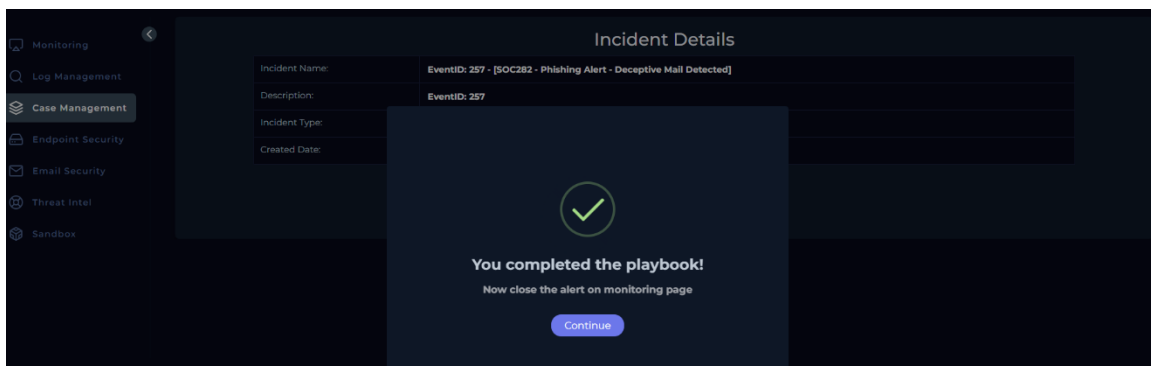


Figure 26: completed Playbook.

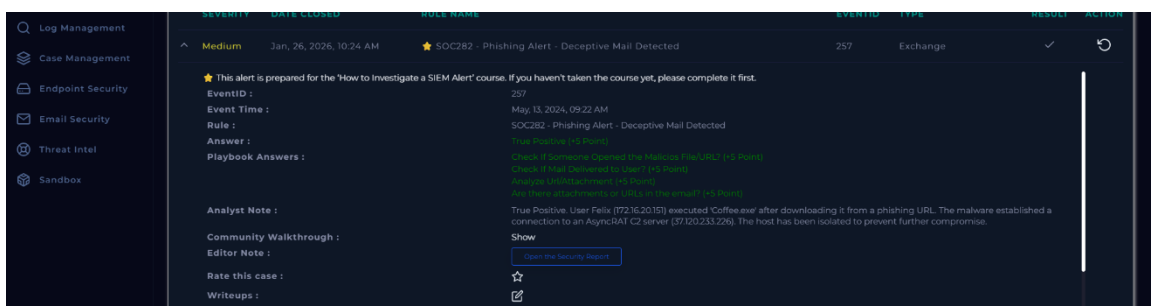


Figure 27: Closed Alert.

Here are the artifacts from your investigation:

- **E-mail Sender:** free@coffeeshoop.com — Sender of the malicious phishing email.
- **E-mail Domain:** coffeeshoop.com — Malicious domain used for the phishing campaign.
- **URL Address:** <https://files-ld.s3.us-east-2.amazonaws.com/59cbd215-76ea-434d-93ca-4d6aec3bac98-free-coffee.zip> — Malicious download link accessed by the user.
- **IP Address:** 37.120.233.226 — Malicious C2 server associated with AsyncRAT activity.
- **IP Address:** 172.16.20.151 — Compromised internal host belonging to Felix.

Summary

This lab provided a realistic simulation of a SOC Analyst's workflow, demonstrating how to effectively use a Playbook to investigate phishing attacks. It highlighted the importance of correlating email security, network logs, and endpoint activity to verify threats. By following the structured response process, I was able to successfully identify the AsyncRAT infection and take decisive action to contain the compromised host.