SOC114 - Malicious Attachment Detected - Phishing Alert

SEVERITY	DATE	RULE NAME	EVENTID	TYPE	ACTION
High	Jan, 31, 2021, 03:48 PM	SOC114 - Malicious Attachment Detected - Phishing Alert	45	Exchange	>> ✓

EventID :	45
Event Time :	Jan, 31, 2021, 03:48 PM
Rule :	SOC114 - Malicious Attachment Detected - Phishing Alert
Level :	Security Analyst
SMTP Address :	49.234.43.39
Source Address :	accounting@cmail.carleton.ca
Destination Address :	richard@letsdefend.io
E-mail Subject :	Invoice
Device Action :	Allowed

Click on >> and create case and click Continue.

Incident Details

Incident Name:	**EventID: 45 - [SOC114 - Malicious Attachment Detected - Phishing Alert]**
Description:	**EventID: 45**
Incident Type:	**Exchange**
Created Date:	**Jan, 11, 2024, 11:01 AM**

Start Playbook!

Let's check the information at hand before we start the playbook.

The rule talks about, "**Malicious Attachment Detected – Phishing Alert**" with type as "**Exchange**" … so our first hit would be at the mailbox.

Click on Email Security and search for the mail with "**COVID19 Vaccine**" as mentioned in the alert.

Invoice OR Detailed Search

Date	Sender	Recipients	Subject	Final Action
Mar, 07, 2021, 04:45 PM	aaronluo@cmail.carleton.ca	nicolas@letsdefend.io	Invoice	Unknown
Jan, 31, 2021, 03:48 PM	accounting@cmail.carleton.ca	richard@letsdefend.io	Invoice	Unknown
Oct, 29, 2020, 07:43 PM	icianb@hotmail.com	sofia@letsdefend.io	Invoice	Unknown

From: accounting@cmail.carleton.ca
To: richard@letsdefend.io
Subject: Invoice
Date: Jan, 31, 2021, 03:48 PM
Action: Action

Dear customer, Your invoice for the shopping you have done is attached. Regards.

Attachments

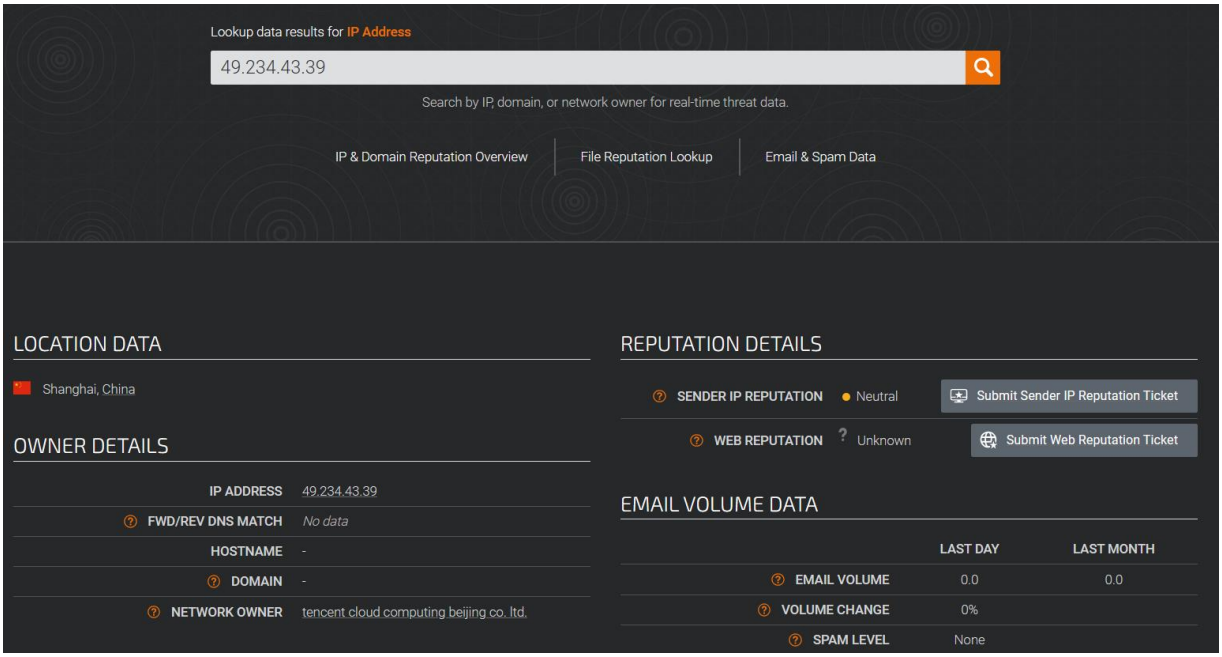
c9ad9506bcccfaa987ff9fc11b91698d

Password: infected

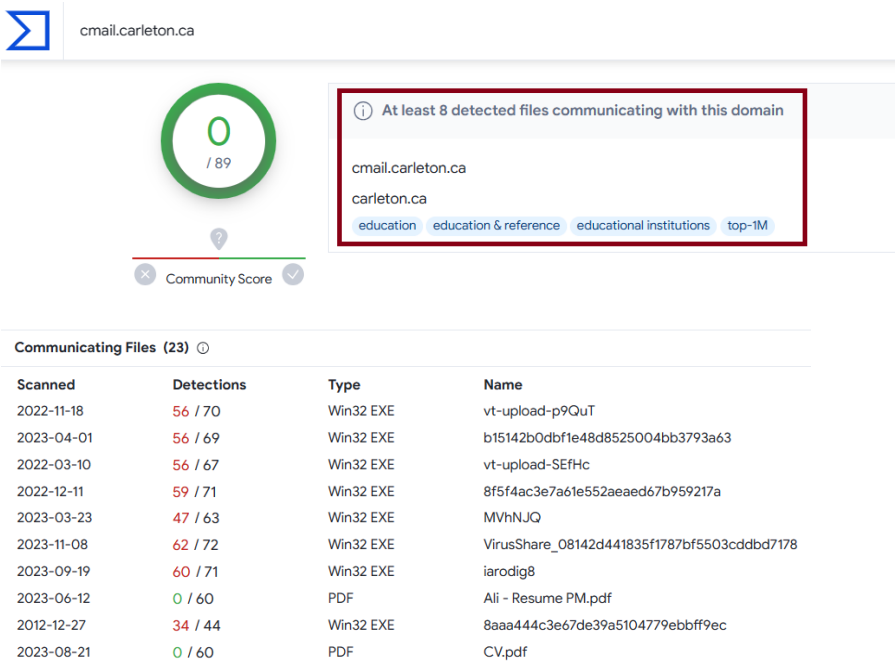
Observing the language of the email gives a sense of generalization, not addressed to someone specific even though the subject is an invoice for a person. The email salutation and body is drafted in the same line ending with "**Regards.**". This lets out a sense of suspicion.

In order to analyse if the email is a Phishing Mail, we need to investigate the attachment. **It should be noted that we may be dealing with a potential malware and as such the usage of a Sandbox is highly advised.**

Let's check the reputation of the SMTP on Talos.



Upon checking the SMTP address is Talos Intelligence, the location of the server shows Shanghai, China belonging to tencent cloud computing. However, the domain Carleton.ca belongs to CA (Canada) which shows that **cmail.carleton.ca** is a spoofed mail domain**.**



This domain has previously been used to transmit executable files which are highly malicious in nature based on the depicted detection rates above.

Upon downloading and opening the attachment, the contents are as follows:

Name	Date modified	Type	Size
44e65a641fb970031c5efed324676b5018...	1/31/2021 1:55 PM	XLSX File	2,167 KB

To analyse the file, we compare its MD5 Hash signature in Virustotal.

44e65a641fb970031c5efed324676b5018803e0a768608d3e186152102615795.xlsx → C9AD9506BCCCFAA987FF9FC11B91698D

44e65a641fb970031c5efed324676b5018803e0a768608d3e186152102615795

32 / 59

Community Score

32 security vendors and 2 sandboxes flagged this file as malicious

Reanalyze | Similar

44e65a641fb970031c5efed324676b5018803e0a768608d3e186152102615795
44e65a641fb970031c5efed324676b5018803e0a768608d3e186152102615795.xlsx

doc | exploit | executes-dropped-file | cve-2017-11882

Size 2.12 MB | Last Analysis Date 4 days ago

DETECTION | DETAILS | RELATIONS | BEHAVIOR | COMMUNITY 17+

Join the VT Community and enjoy additional community insights and crowdsourced detections, plus an API key to automate checks.

Popular threat label trojan. | Threat categories trojan

Security vendors' analysis | Do you want to automa

AhnLab-V3	OLE/Cve-2017-11882.Gen	Arcabit	Trojan.Generic.D417B242
Avast	Other:Malware-gen [Trj]	AVG	Other:Malware-gen [Trj]
BitDefender	Trojan.GenericKD.68661826	DrWeb	Exploit.Siggen3.9145
Emsisoft	Trojan.GenericKD.68661826 (B)	eScan	Trojan.GenericKD.68661826
ESET-NOD32	Multiple Detections	Fortinet	MSOffice/CVE_2017_11882.C!exploit
GData	Trojan.GenericKD.68661826	Kaspersky	UDS:DangerousObject.Multi.Generic

Activity Summary

3 Detections: 2 MALWARE | 1 EXPLOIT | 1 SPREADER

Mitre Signatures: NOT FOUND

IDS Rules: 1 HIGH | 2 LOW

Sigma Rules: NOT FOUND

Behavior Tags: detect-debug-environment | executes-dropped-file | long-sleeps

Dynamic Analysis Sandbox Detections

- The sandbox Dr.Web vxCube flags this file as: MALWARE EXPLOIT SPREADER
- The sandbox SecneurX flags this file as: MALWARE

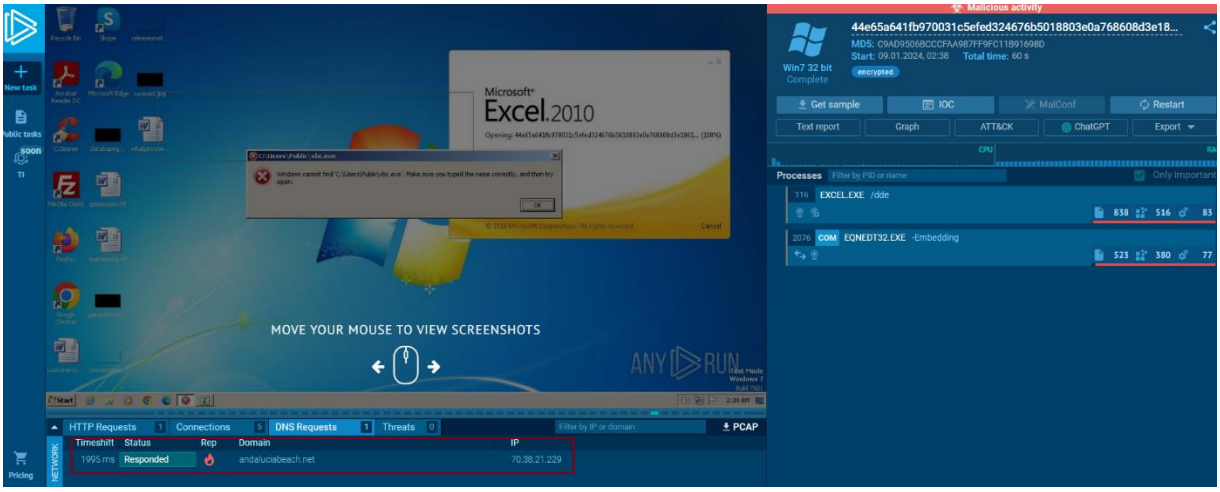
Crowdsourced IDS rules

- Matches rule EVENT_GZIP_OVERRUN at Snort registered user ruleset
  ↳ *unknown*
- Matches rule SSLBL: Malicious JA3 SSL-Client Fingerprint detected (Tofsee) at Abuse.ch Suricata JA3 Fingerprint Ruleset
- Matches rule ET POLICY PE EXE or DLL Windows file download HTTP at Proofpoint Emerging Threats Open
  ↳ *Potential Corporate Privacy Violation*

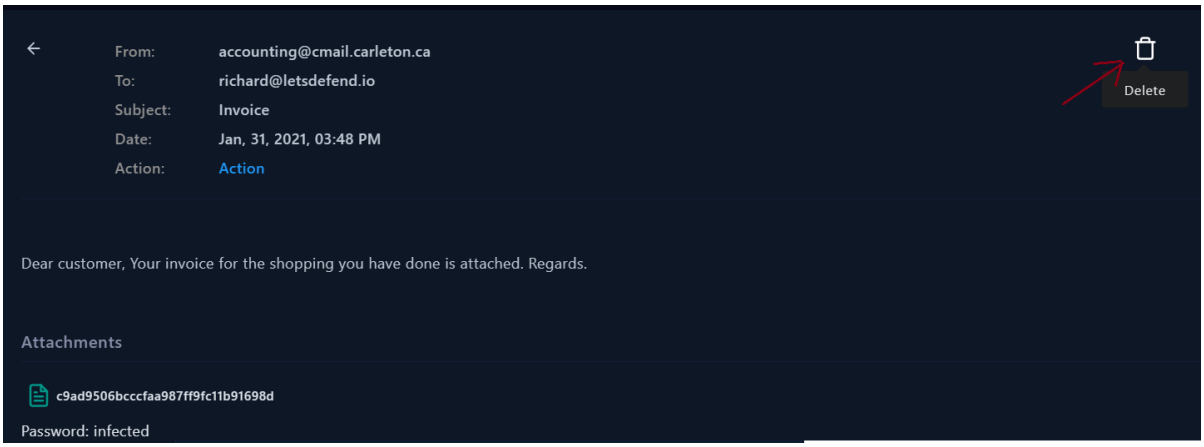
When scanned in app.any.run, the file was found to have DNS linkage with the site: andaluciabeach.net

Dateadded (UTC)	Malware URL	Status	Tags	Reporter
2021-01-31 08:08:04	http://andaluciabeach.net/image/network.exe	Offline	exe, njRAT, opendir, rat, RemcosRAT	abuse_ch

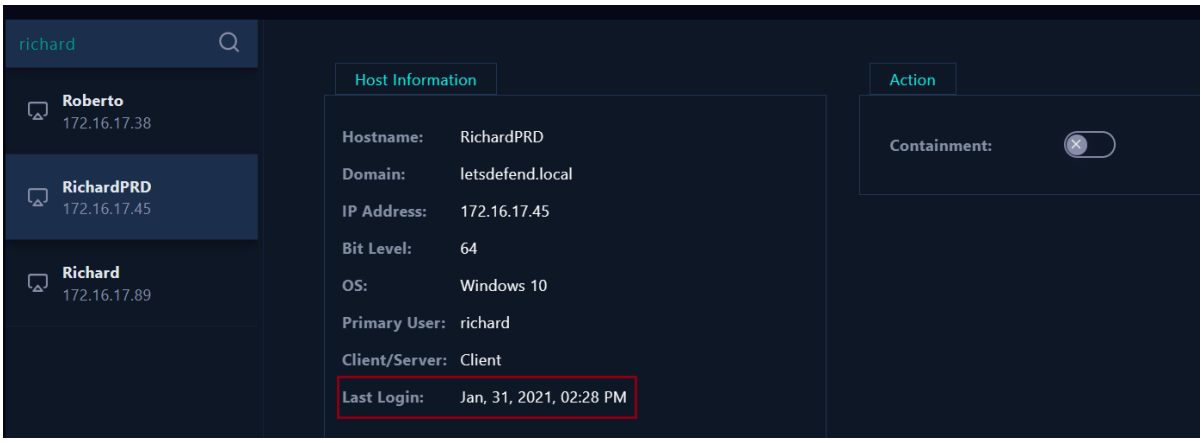
Reputation on URLhaus advises that the site installs a RemcosRAT (Remote Controlled & Surveillance RAT)



It has been determined that the file is highly malicious in nature and that the email should be deleted from the mailbox. The device action is “Allowed” which means the mail was delivered to Richard’s mailbox.



Let’s check if there are instances if the file was executed. Let’s open the Endpoint.



We can see that excel & outlook was run post which Richard logged off from the machine as denoted by the Last Login timestamp. The malware has a deferred launch capability and started working at 16:15 based on the endpoint process logs and confirmed with network logs (below)

‹ Hide Fields

INTERESTING FIELDS

α type
α source_address
source_port
α destination_address
destination_port
α raw_log

Event

type	Proxy
source_address	172.16.17.45
source_port	53948
destination_address	5.135.143.133
destination_port	443
time	Jan, 31, 2021, 04:15 PM
Raw Log	
Request URL	http://andaluciabeach.net/image/network.exe
Request Method	GET
Device Action	Allowed
Process	EQNEDT32.EXE

It then downloaded the hacktool JuicyPotato.EXE at 16:20

54 security vendors and 1 sandbox flagged this file as malicious

Reanalyze

54 / 72

Community Score

0f56c703e9b7ddeb90646927bac05a5c6d95308c8e13b88e5d4f4b572423e036

UpdateHelper.exe

peexe | assembly | runtime-modules | detect-debug-environment | idle | spreader | 64bits

Size 339.50 KB

Last Analy 13 days ag

DETECTION | DETAILS | RELATIONS | BEHAVIOR | COMMUNITY 14 +

Join the VT Community and enjoy additional community insights and crowdsourced detections, plus an API key to automate checks.

Popular threat label hacktool.juicypotato/jpotato

Threat categories hacktool trojan

Family labels juicypotato jpotato mikey

Security vendors' analysis

Do you w

AhnLab-V3	HackTool/Win.JuicyPotato.R509932	Alibaba	HackTool:Win64/JPotato.a305353e
ALYac	Misc.HackTool.JuicyPotato	Antiy-AVL	Trojan[APT]/Win64.Pioneerkitten
Arcabit	Trojan.Application.Mikey.D21164	Avira (no cloud)	TR/JuicyPotato.twazv
BitDefender	Gen:Variant.Application.Mikey.135524	Bkav Pro	W32.Common.8AC7FF23
CrowdStrike Falcon	Win/malicious_confidence_100% (W)	Cybereason	Malicious.b6c792
Cylance	Unsafe	Cynet	Malicious (score: 99)

The machine has been compromised and should be immediately contained.

Action

Containment: Host Contained

Let’s start the Playbook!

Parse Email

Before starting the analysis, information about the incoming email should be obtained.

- When was it sent?
- What is the email's SMTP address?
- What is the sender address?
- What is the recipient address?
- Is the mail content suspicious?
- Are there any attachment?

Next

When was it sent? Jan, 31, 2021, 03:48 PM

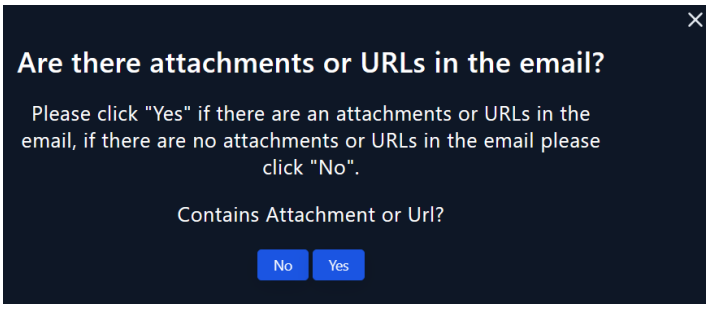
What is the email's SMTP address? 49.234.43.39

What is the sender address? accounting@cmail.carleton.ca

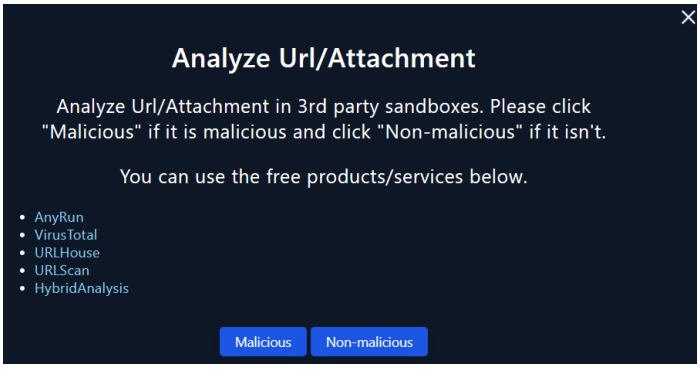
What is the recipient address? richard@letsdefend.io

Is the mail content suspicious? Yes

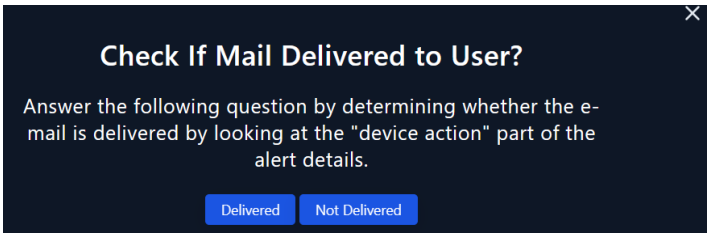
Are there any attachments? Yes



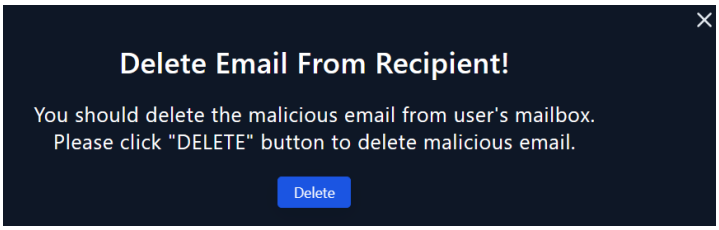
Selecting "**YES**" here



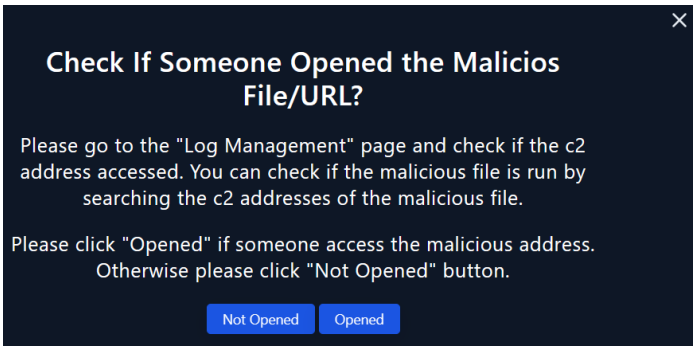
Selecting "**Malicious**" here based on our observation.



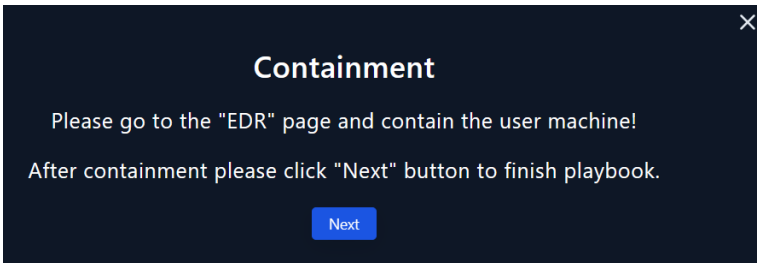
Mail was "**Delivered**" as device action was <u>Allowed</u>.



Deleted already. Select "Delete"

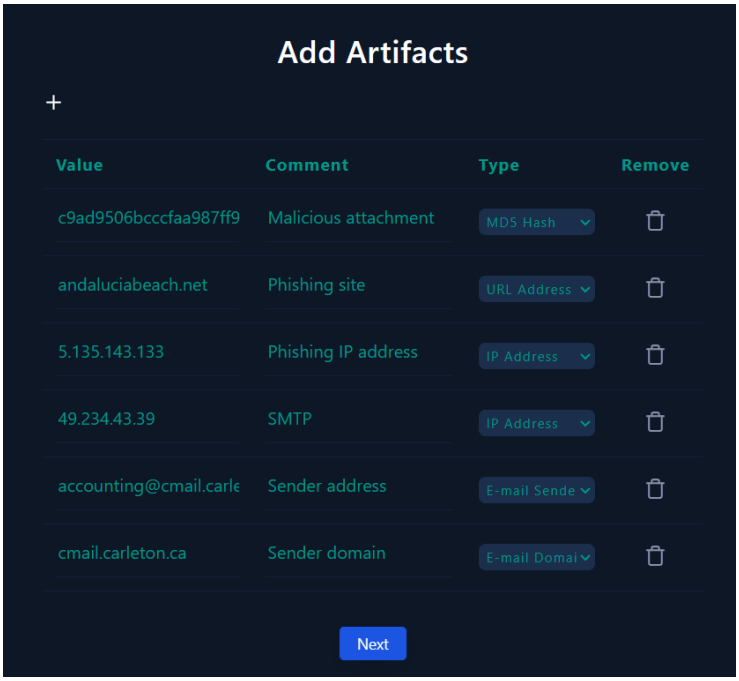


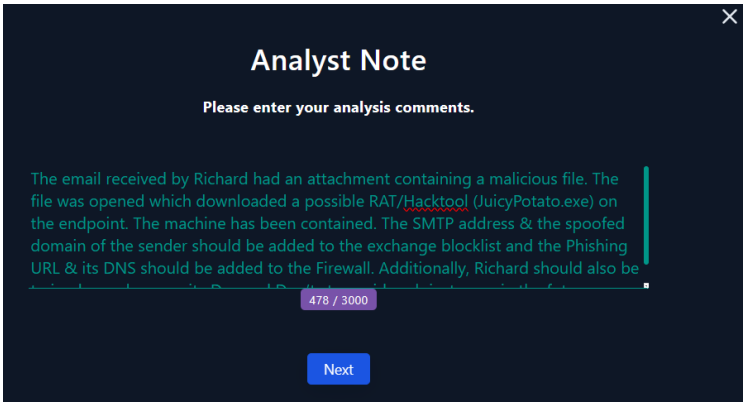
It was clear from the logs that the file was opened. Selecting “**Opened**” here.



Machine has already been contained. Select Next.

Adding the obtained artificats



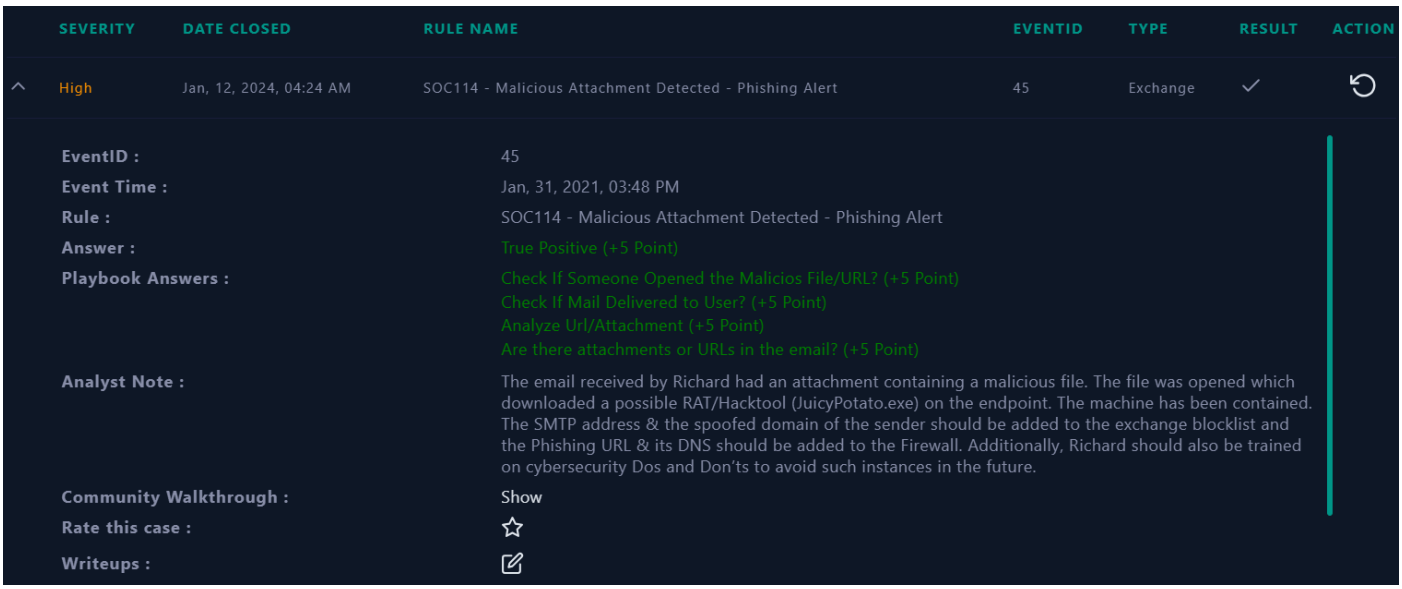


The email received by Richard had an attachment containing a malicious file. The file was opened which downloaded a possible RAT/Hacktool (JuicyPotato.exe) on the endpoint. The machine has been contained. The SMTP address & the spoofed domain of the sender should be added to the exchange blocklist and the Phishing URL & its DNS should be added to the Firewall. Additionally, Richard should also be trained on cybersecurity Dos and Don’ts to avoid such instances in the future.

.. And click and confirm on FINISH PLAYBOOK and close the Alert.

This would be a True Positive as the email indeed contained a "**Malicious Attachment**".

Let's check the scores now.



Hope this helped.