Official incident report

Event ID: 86

Rule Name: SOC141 - Phishing URL Detected

Made By

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Event Details

Event ID:
86

Event Date and Time:
Mar, 22, 2021, 09:23 PM

Rule:
SOC141 - Phishing URL Detected

Level:
Security Analyst

Network Information Details

Destination Address:
91.189.114.8

Source Address:
172.16.17.49

External / Internal Attack:

- **Destination Address:** 91.189.114.8 (Public IP, likely external)
- **Source Address:** 172.16.17.49 (Private IP, internal network)

Based on this information, it appears to be an **internal to external attack** since the source address originates from an internal network, and the destination address is external.

Internal attack
"because the attack from our network"

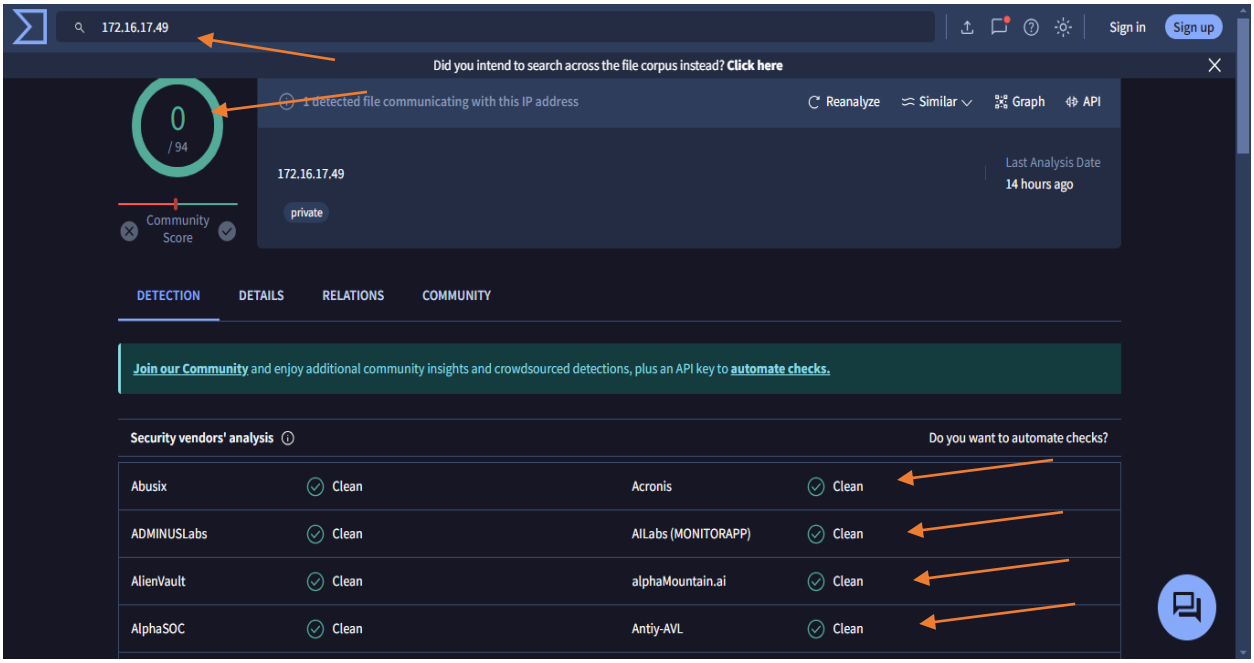
Detection:

Threat Intelligence Results

First step: I searched the source IP address on VirusTotal, but no results were found. Please check the attached photo.

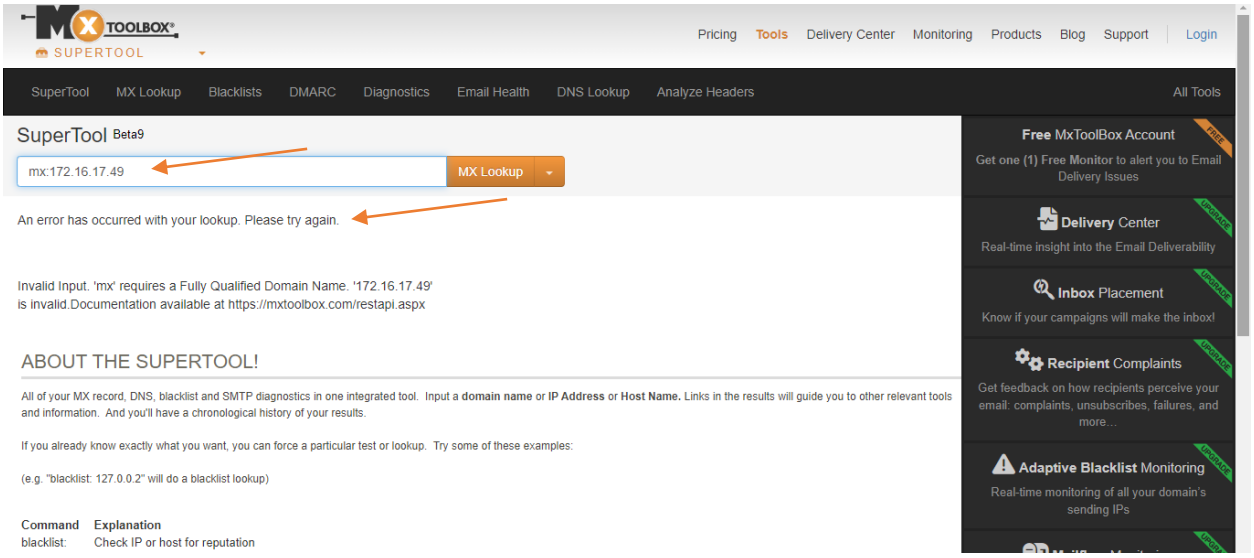
VirusTotal: No results found.

(See attached photo)



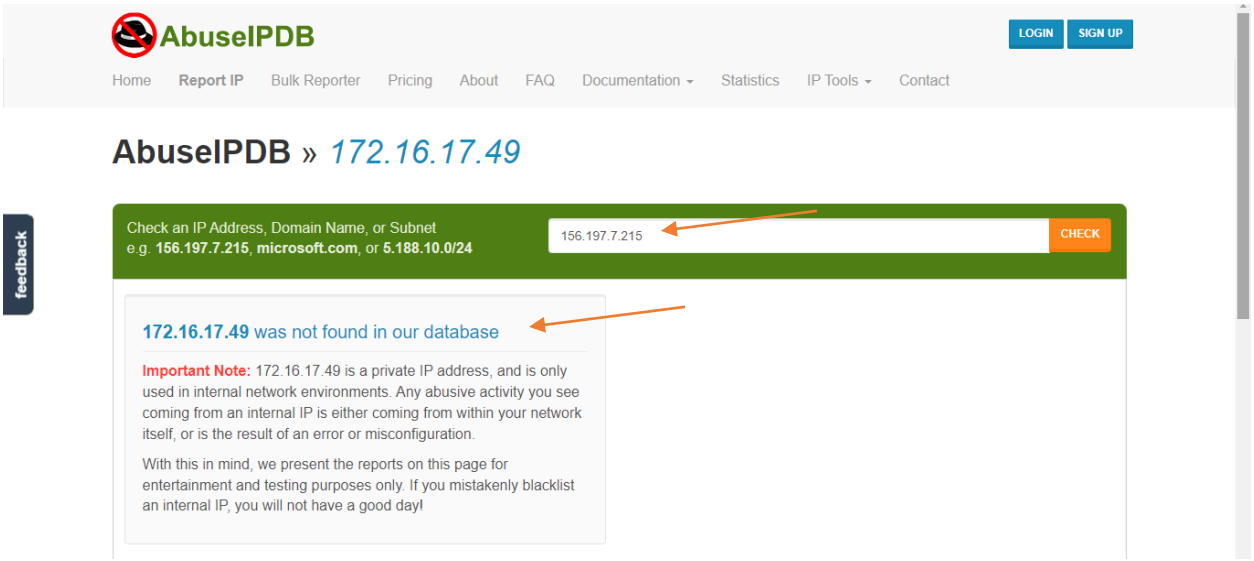
MXToolbox: No results found.

(See attached photo)



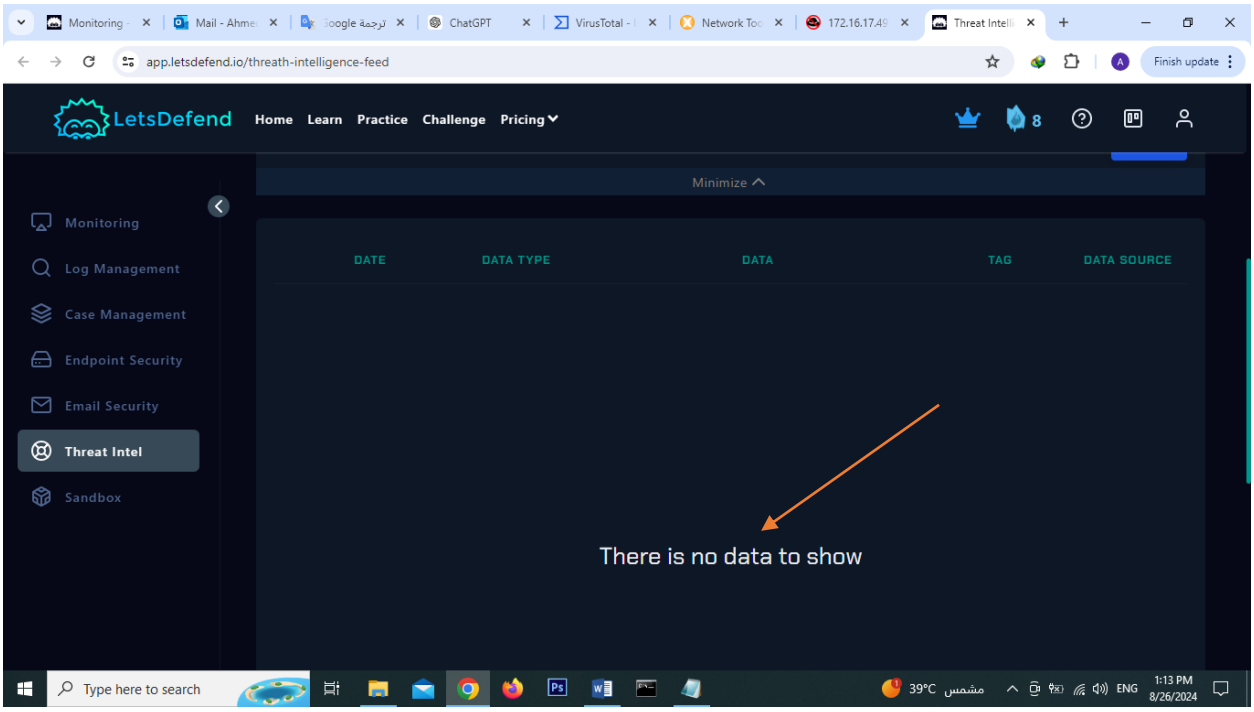
AbuseIPDB: No results found.

(See attached photo)



LetsDefend: No results found.

(See attached photo)



Each result was consistent across the platforms, indicating no known threat associations with the given source IP address.

The Request URL address " http://mogagrocol.ru/wp-content/plugins/akismet/fv/index.php?email=ellie@letsdefend.io " .

was analyzed across VirusTotal:

VirusTotal:

Detection Section:

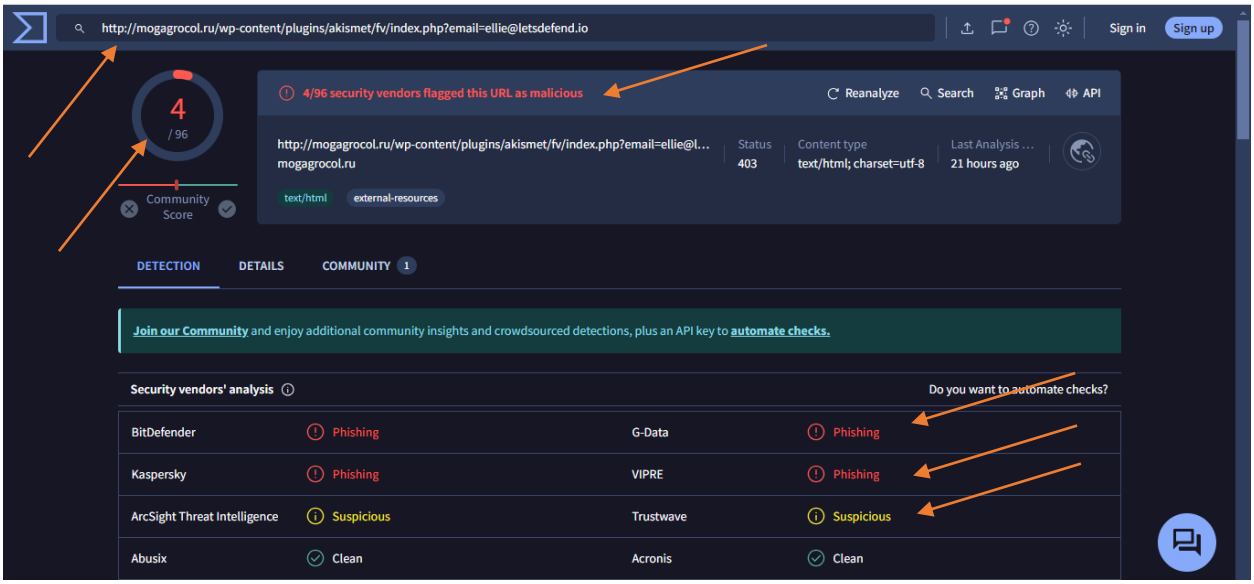
Out of 96 security vendors, 2 flagged this URL as malicious:

- BitDefender: Phishing
- Kaspersky: Phishing

Additionally, the following vendors classified it as suspicious:

- ArcSight Threat Intelligence: Suspicious

(See attached photo)

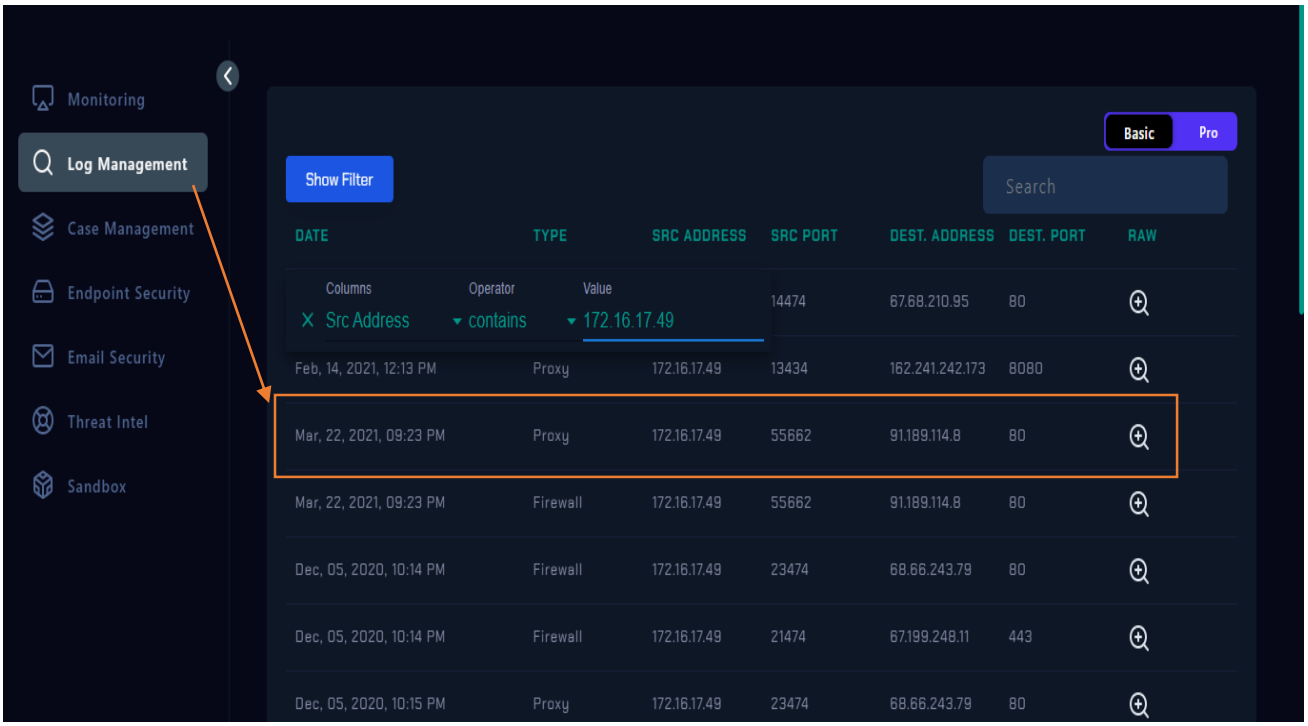


Analysis:

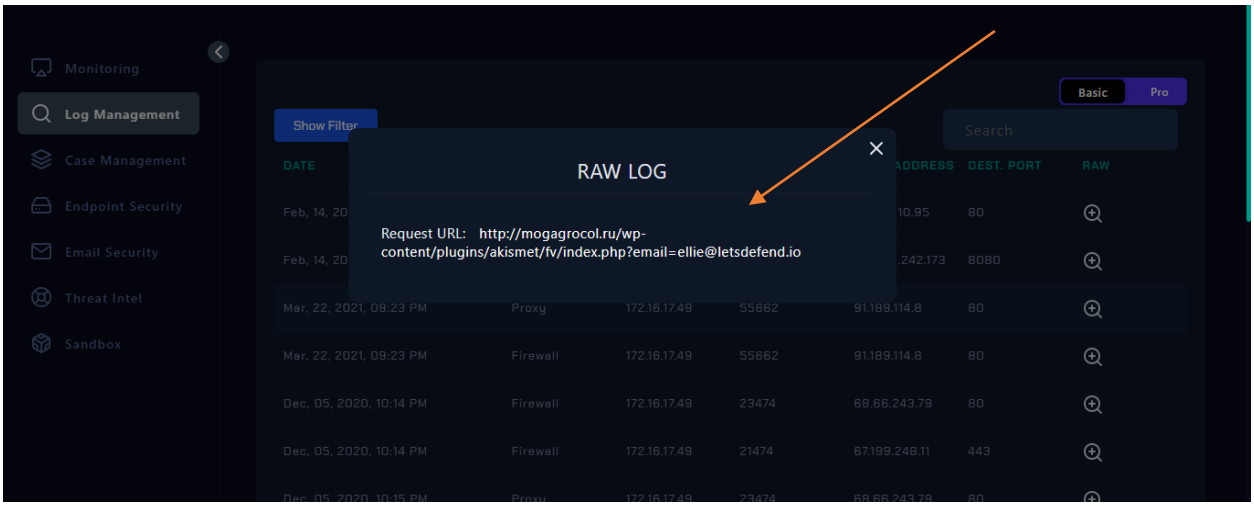
Log Management

From log management section (we typed the source IP) we got this result

NOTE: With the same date of our alert!



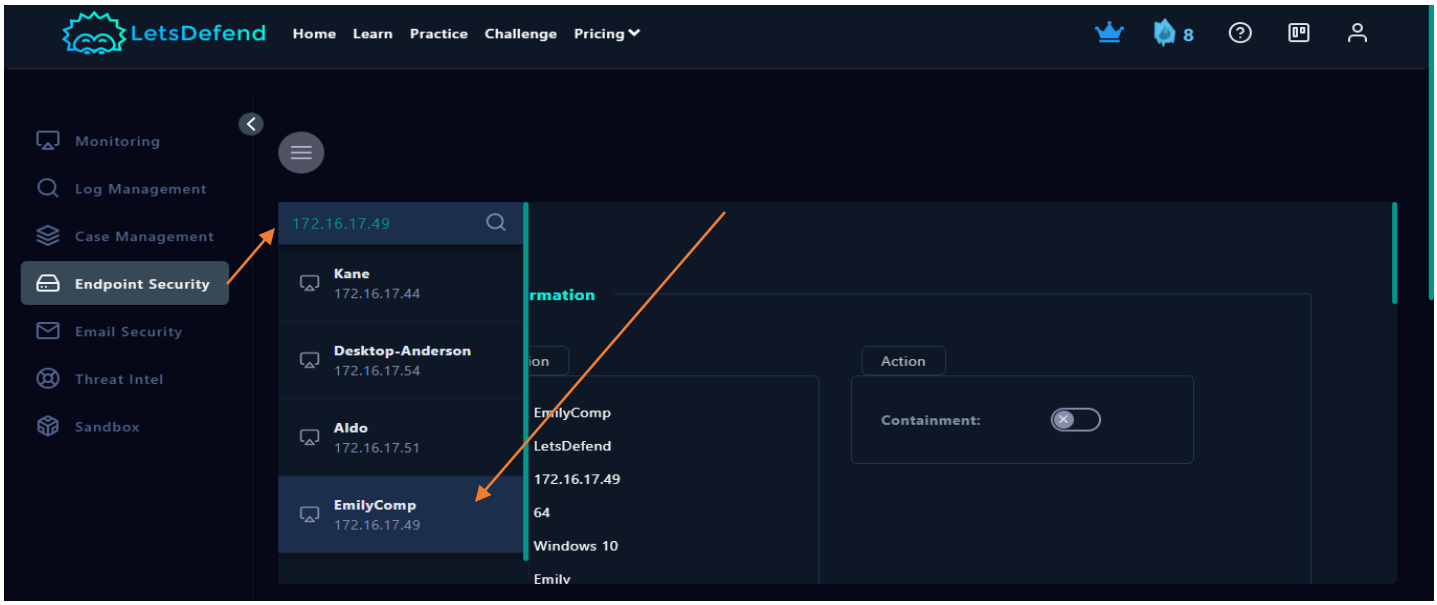
We click on the log record of “proxy” to view the result, and from the main alert its shows “Allowed”



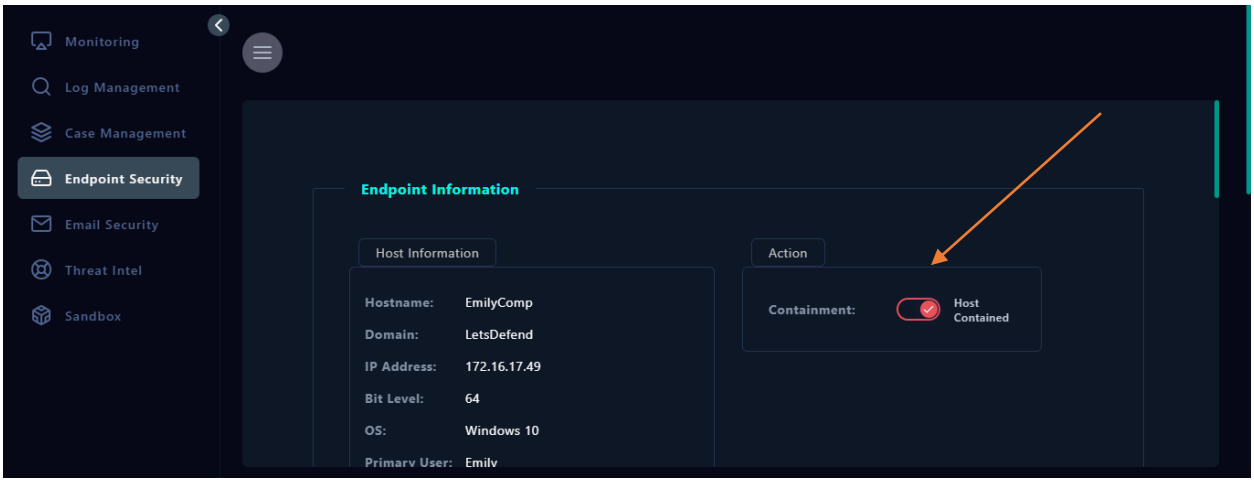
Endpoint Security

We will type the Source IP in the alert in the endpoint security to check the activities.

“because the attack from our network”

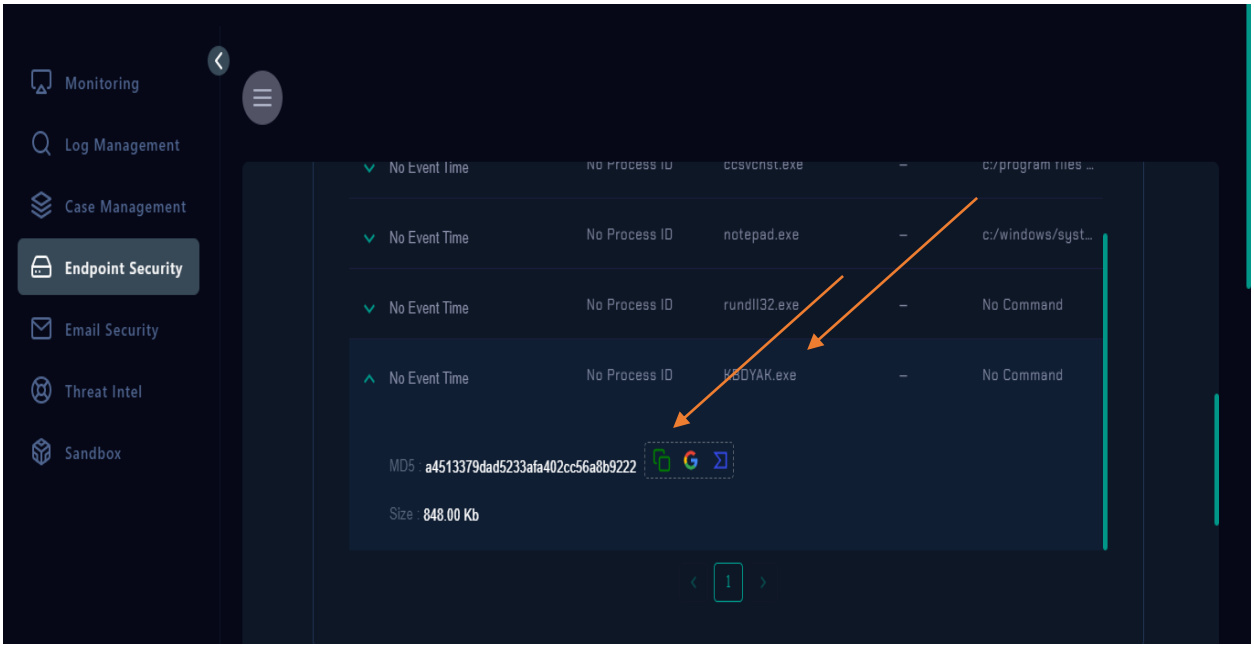


After reviewing the endpoint data (Processes and Terminal History), it's clear that the device has been compromised, and the attacker had full control before the our alert date and time. We need to contain the device immediately. I will present the terminal command history and process details, highlighting the discrepancy between the command dates and our alert date.



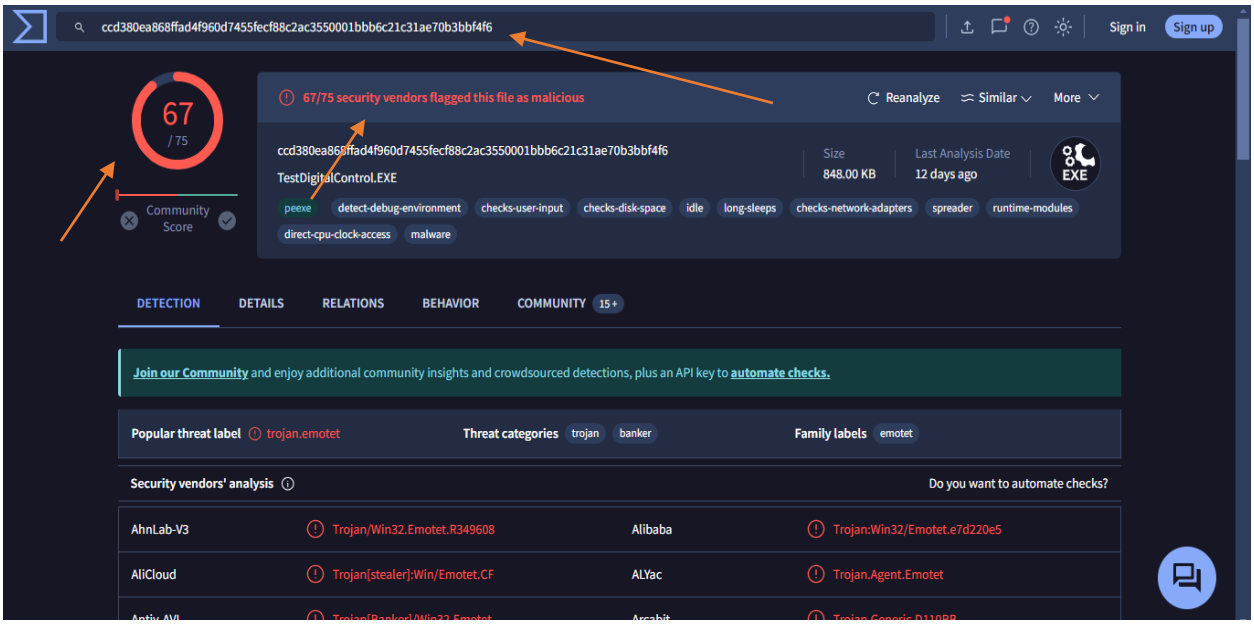
Contained successfully.

Endpoint – Processes section:



I discovered an unusual program installed and running on the device. I extracted the MD5 hash and checked it on VirusTotal for analysis and to determine the program's status

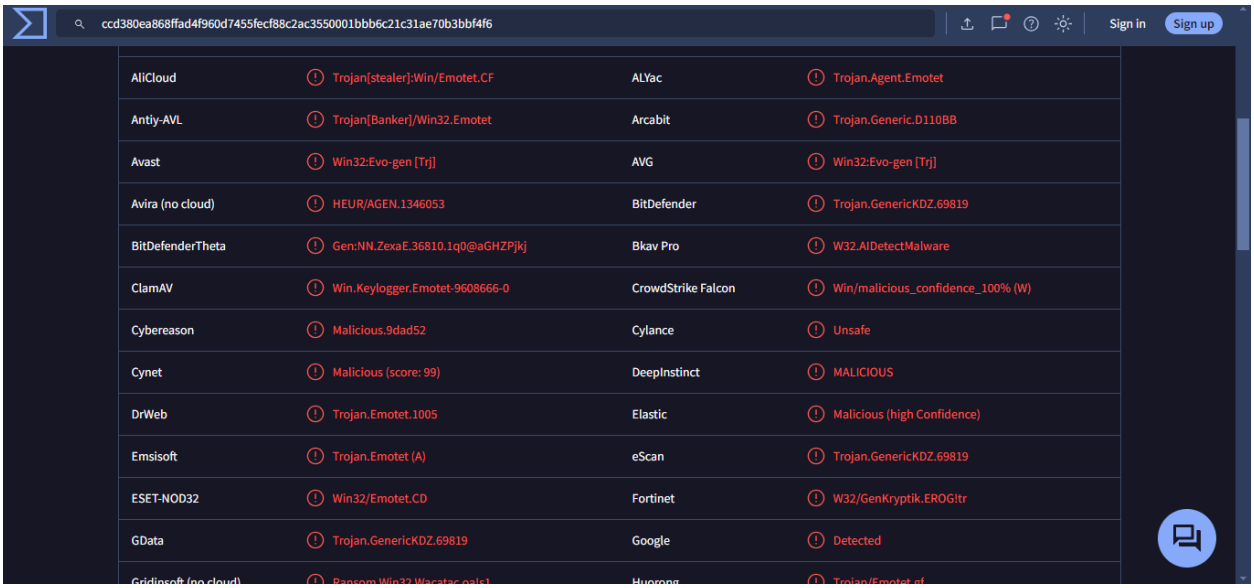
The result:



VirusTotal Detection Results:

The file with MD5 hash `ccd380ea868ffad4f960d7455fecf88c2ac3550001bbb6c21c31ae70b3bbf4f6` and name `TestDigitalControl.EXE` was flagged as malicious by 67 out of 75 security vendors.

See the result for detection Results from this link: [result link]



VirusTotal Detection Results:

File Details:

- **MD5:** a4513379dad5233afa402cc56a8b9222
- **SHA-1:** 805727279208de9cf49e6374b1f3a6dc0052620e
- **SHA-256:** ccd380ea868ffad4f960d7455fecf88c2ac3550001bbb6c21c31ae70b3bbf4f6
- **Vhash:** 085046651d1510a012z1e00699z37z20064fz
- **Authentihash:** b48567103d01f99621574c0103dce258bc82c88b2c9d8aa9b9c4cdae308eb8f7
- **Imphash:** 4e4c2573ec91640cc3539c50c7325d1d
- **Rich PE Header Hash:** 767e5e5542a31b2ce970471a0af7eb29
- **SSDEEP:** 6144:/TaQZdJnaB1kNOlFSm9tc6c6c6c6c6c6c6c6c6csImOksMWNIDK:/GQfJyFrz7
- **TLSH:** T1A1050682FA4181B4C5FB10357836CD9102FEEF2569329E33A785778FCD3A5866B22325

File Type: Win32 EXE

Magic: PE32 executable (GUI) Intel 80386 for MS Windows

TrID:

- Windows Control Panel Item (50.1%)
- Win32 Executable MS Visual C++ (27.1%)
- Win64 Executable (9.1%)
- Win16 NE executable (4.3%)

DetectItEasy:

- PE32
- Compiler: Microsoft Visual C/C++ (2003)
- Library: MFC [static]
- Tool: Visual Studio (2003)

File Size: 848.00 KB (868,352 bytes)

PEiD Packer: Microsoft Visual C++ v7.0

Creation Time: 2020-08-28 16:38:33 UTC

First Seen: 2014-10-09 13:20:35 UTC

First Submission: 2020-08-29 21:38:33 UTC

Last Submission: 2024-08-14 08:37:48 UTC

Last Analysis: 2024-08-14 08:37:57 UTC

File Names:

- TestDigitalControl
- TestDigitalControl.EXE
- KBDYAK.exe
- KBDYAK.bin
- KBDYAK.txt
- ccd380ea868ffad4f960d7455fecf88c2ac3550001bbb6c21c31ae70b3bbf4f6.bin
- VirusShare_a4513379dad5233afa402cc56a8b9222
- tcpipcfg.exe
- OXhYYv1Fyr.exe
- Ww1uczsw.exe

Signature Info: File is not signed

File Version Information:

- **Copyright:** °æÈ¨ËùÓÐ (C) 2007

- **Product:** TestDigitalControl
- **Description:** TestDigitalControl Microsoft
- **Original Name:** TestDigitalControl.EXE
- **Internal Name:** TestDigitalControl
- **File Version:** 1.0.0.1

Portable Executable Info:

- **Compiler Products:**
  - VS2003 (.NET) build 3077
  - Microsoft Visual C/C++ (2003)
- **Library:** MFC [static]
- **Linker:** Microsoft Linker (7.10.3077)

Header:

- **Target Machine:** Intel 386 or later processors
- **Compilation Timestamp:** 2020-08-28 16:38:33 UTC
- **Entry Point:** 18552

Contained Sections: 4

- **.text:** 4096 VA, 94516 VS, 98304 RS, Entropy: 6.48
- **.rdata:** 102400 VA, 25450 VS, 28672 RS, Entropy: 4.58
- **.data:** 131072 VA, 22900 VS, 12288 RS, Entropy: 4.09
- **.rsrc:** 155648 VA, 722896 VS, 724992 RS, Entropy: 2.58

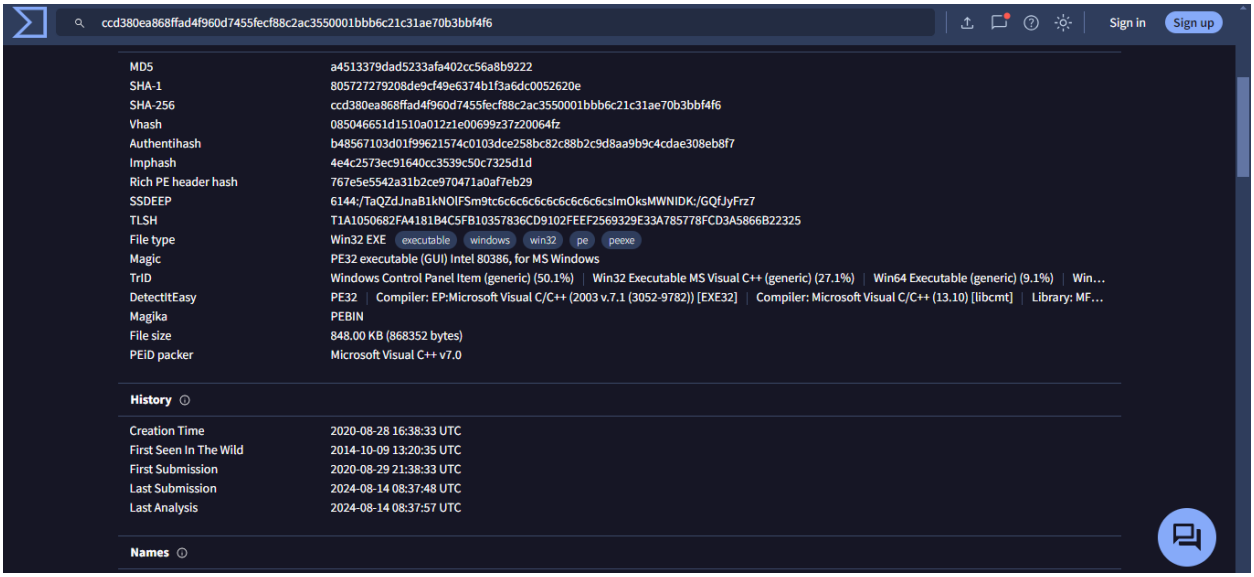
Imports:

- KERNEL32.dll
- USER32.dll
- GDI32.dll
- WINSPOOL.DRV
- ADVAPI32.dll
- COMCTL32.dll
- SHLWAPI.dll
- OLEAUT32.dll

Contained Resources:

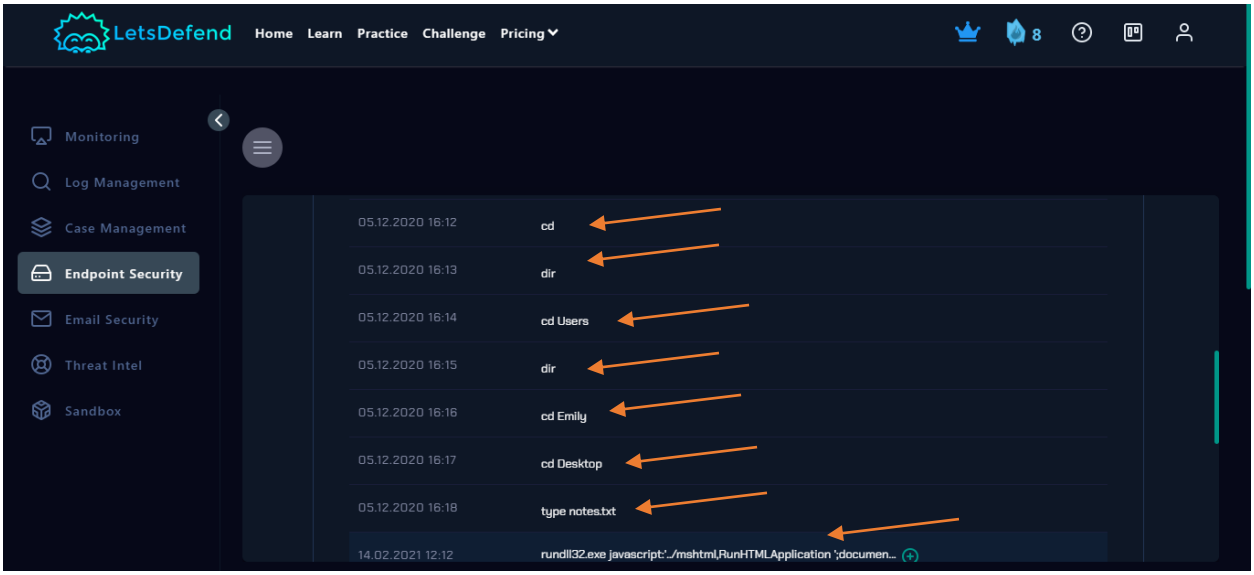
- **By Type:**
  - RT_CURSOR: 16
  - RT_GROUP_CURSOR: 15
  - RT_STRING: 13
  - RT_ICON: 10
  - RT_BITMAP: 2

    - RT_DIALOG: 2
    - RT_GROUP_ICON: 1
    - RT_VERSION: 1
    - RT_RCDATA: 1
- **By Language:**
    - CHINESE SIMPLIFIED: 47
    - ENGLISH US: 14



See the result for Details Results from this link: [result link]

Endpoint – Terminal section:



Based on the terminal log, here's a summary of the hacker's actions:

1. **05.12.2020 16:12** - The hacker changed the directory to the root directory (`cd`).
2. **05.12.2020 16:13** - The hacker listed the contents of the current directory (`dir`).
3. **05.12.2020 16:14** - The hacker navigated to the `Users` directory (`cd Users`).
4. **05.12.2020 16:15** - The hacker listed the contents of the `Users` directory (`dir`).
5. **05.12.2020 16:16** - The hacker navigated to the `Emily` user directory (`cd Emily`).
6. **05.12.2020 16:17** - The hacker navigated to the `Desktop` directory within the `Emily` user directory (`cd Desktop`).
7. **05.12.2020 16:18** - The hacker displayed the contents of `notes.txt` on the Desktop (`type notes.txt`).

On **14.02.2021 12:12**, the hacker executed the following command:

8. **14.02.2021 12:12** - The hacker used `rundll32.exe` to run a JavaScript command that includes a `GetObject` function. This function fetched and executed a file (`KBDYAK.exe`) from a remote server (`http://ru-uid-507352920.pp.ru/KBDYAK.exe`).

The hacker explored the file system, particularly focusing on the `Emily` user's `Desktop` directory, The hacker executed a command to download and run a malicious executable (`KBDYAK.exe`) from a remote server, indicating that the system was compromised and controlled by the attacker.

Conclusion

On March 22, 2021, an internal security incident was detected involving an attack originating from within our network. The investigation reveals a sophisticated breach where an internal device was used to communicate with an external destination, specifically targeting IP address 91.189.114.8. The source IP address, 172.16.17.49, was identified as internal, confirming that the attack was launched from within our own network infrastructure.

The analysis of the alert and network logs highlights several critical aspects of this breach. The initial detection was flagged by our security system under the rule SOC141 - Phishing URL Detected. Despite thorough checks using VirusTotal, MXToolbox, AbuseIPDB, and LetsDefend, no threat associations were found for the source IP address. However, the request URL identified in the alert, `http://mogagrocol.ru/wp-content/plugins/akismet/fv/index.php?email=ellie@letsdefend.io`, was found to be flagged as malicious by two prominent security vendors—BitDefender and Kaspersky—as a phishing threat. Additionally, the URL was marked as suspicious by ArcSight Threat Intelligence.

Upon further examination of the endpoint security and log management, it became evident that the compromised device had been under the attacker's control well before the alert date. The device was examined for any suspicious activities, and it was found that the attacker had gained full control of the system. The discrepancy between the command execution dates and the alert date indicates that the attacker had sufficient time to establish control and execute malicious commands without detection.

A closer inspection of the terminal logs revealed the following sequence of actions by the attacker:

1. **05.12.2020 16:12** - The attacker navigated to the root directory.
2. **05.12.2020 16:13** - The directory contents were listed.
3. **05.12.2020 16:14** - The attacker accessed the `Users` directory.
4. **05.12.2020 16:15** - The contents of the `Users` directory were listed.
5. **05.12.2020 16:16** - The attacker navigated to the `Emily` user directory.
6. **05.12.2020 16:17** - The attacker accessed the `Desktop` directory within the `Emily` user profile.
7. **05.12.2020 16:18** - The content of `notes.txt` on the Desktop was displayed.

On February 14, 2021, at 12:12, a critical action was logged where the attacker used `rundll32.exe` to execute a JavaScript command. This command was designed to download and run a file, `KBDYAK.exe`, from a remote server located at `http://ru-uid-507352920.pp.ru/KBDYAK.exe`. The execution of this command confirms that the attacker leveraged a known vulnerability to introduce and run a malicious executable on the compromised device.

The file in question, identified as `TestDigitalControl.EXE`, was analyzed and found to be flagged as malicious by 67 out of 75 security vendors on VirusTotal. This file’s detailed

properties reveal that it was a Win32 executable, compiled using Microsoft Visual C++ and associated with known malicious activities.

In summary, the breach was the result of an internal device being compromised and used to execute a remote attack. Immediate actions must be taken to contain the affected device, conduct a thorough investigation to understand the full scope of the breach, and implement enhanced security measures to prevent future incidents. It is imperative to address any underlying vulnerabilities in our network and ensure that all endpoints are secured against potential threats.