



Official incident report

Event ID: 214

Rule Name: SOC251 – Quishing Detected (QR Code Phishing)

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Event Details

Event ID:

214

Event Date and Time:

Jan, 01, 2024, 12:37 PM

Rule:

SOC282 –Phishing Alert (Deceptive Mail Detection

Level:

Security Analyst

Network Information Details

Destination Address:

172.16.17.148

SMTP Address:

158.69.201.47

External / Internal Attack:

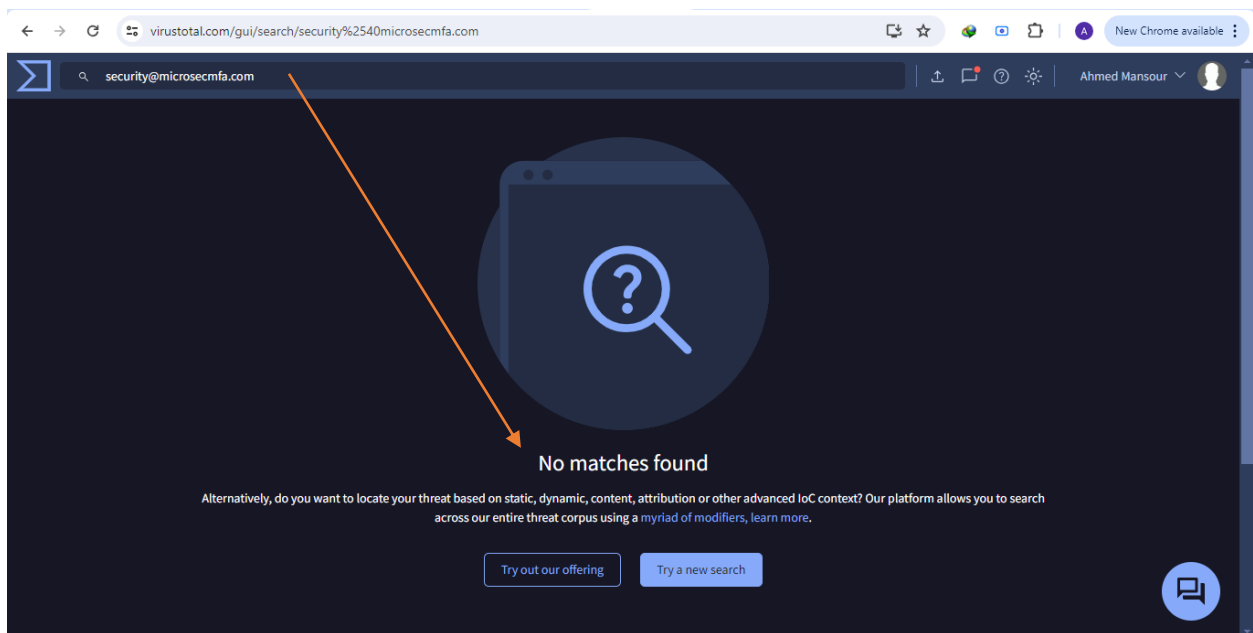
External

Detection:

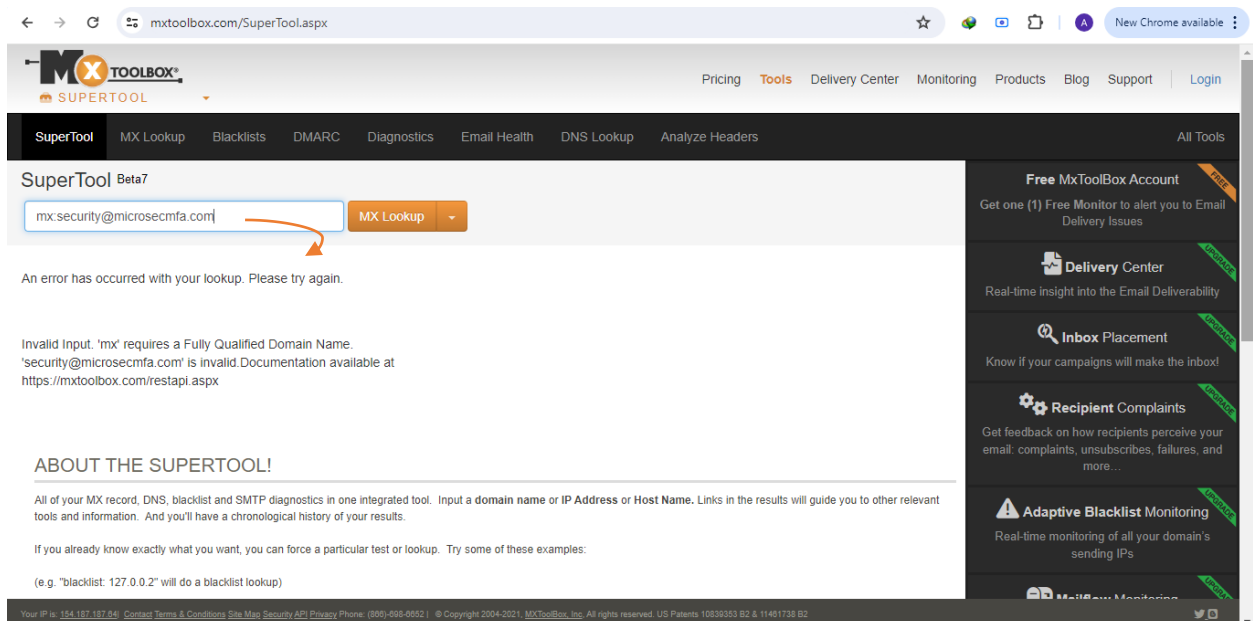
Threat Intelligence Results

First Detection: Email Source Check

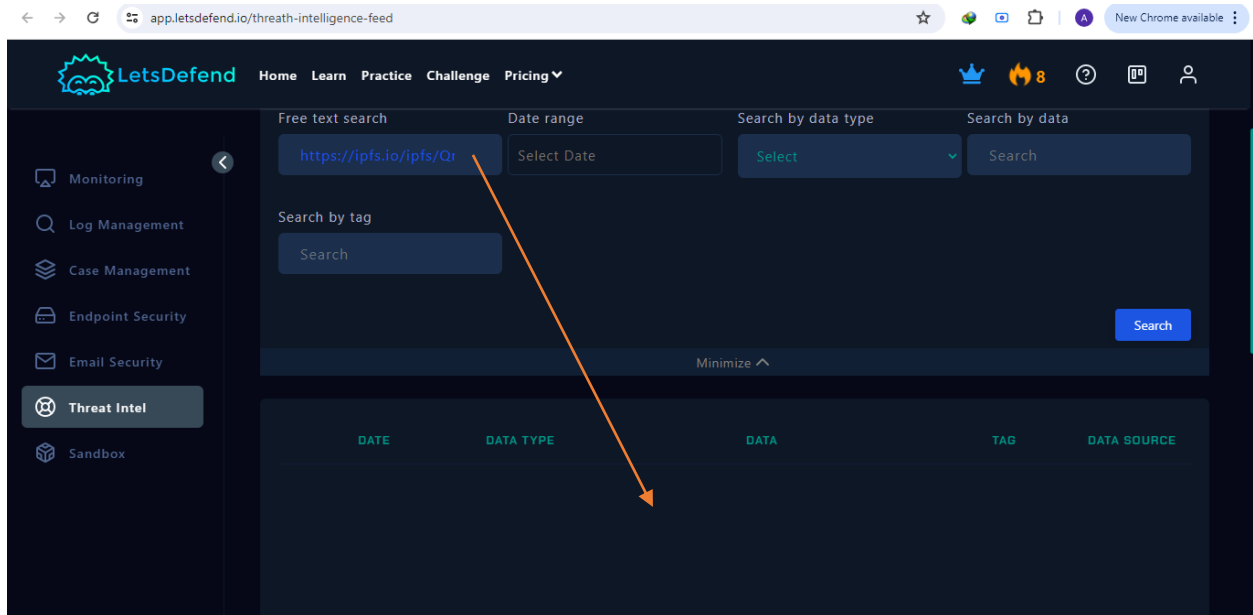
1. **Tools Used:** VirusTotal, MXToolbox, LetsDefend.io
2. **Process:**
 - The source email was checked across all three platforms.
 - Results:
 - **VirusTotal:** No detections (see attached screenshot).



- **MXToolbox:** No issues found (see attached screenshot).



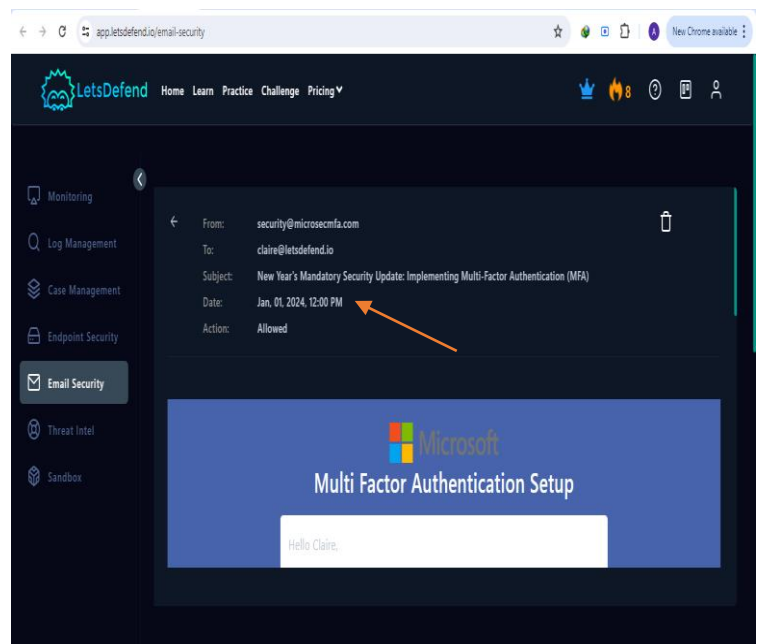
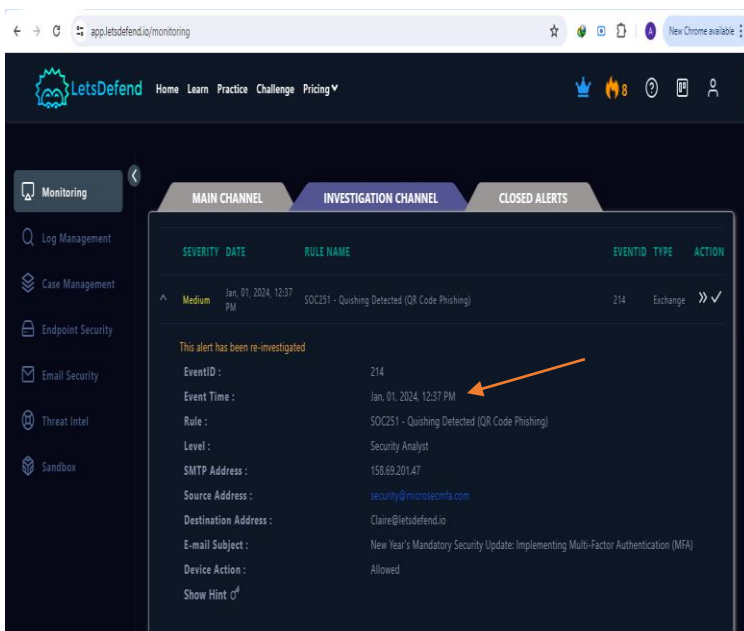
- **LetsDefend.io:** No malicious indicators (see attached screenshot).



Second Detection: QR Code Investigation

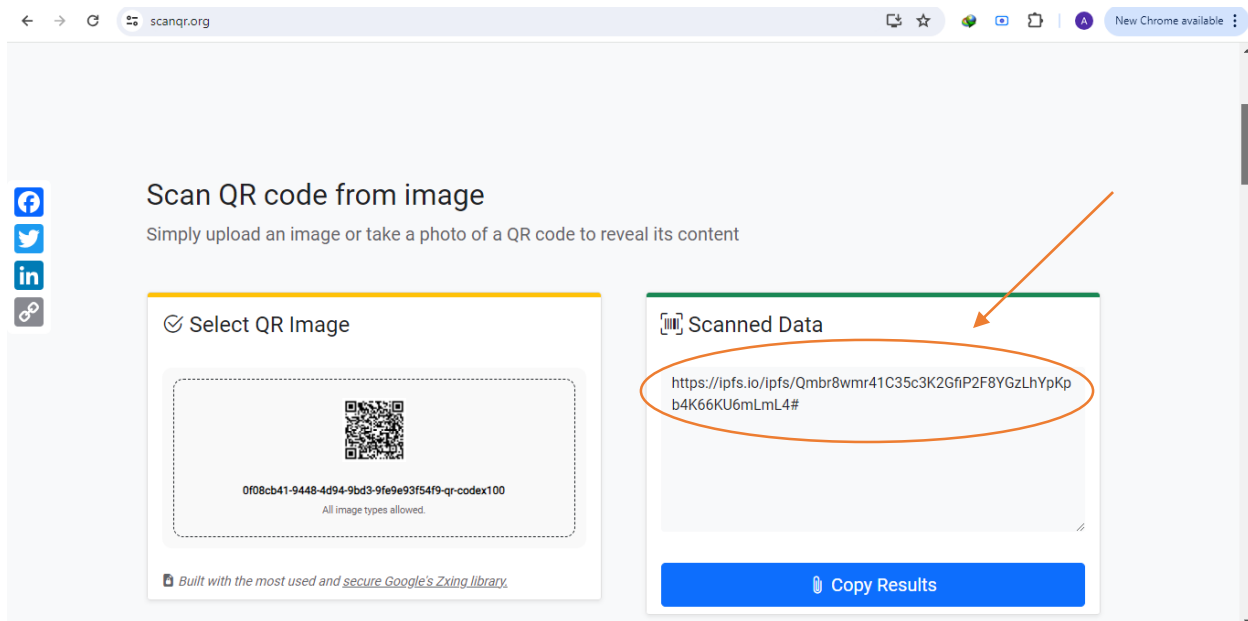
1. Context:

- The email security section was accessed, and a search was conducted using the source email.
- The email matched the alert time (Jan 01, 2024, 12:37 PM) (see attached screenshots of the alert and email timestamp).



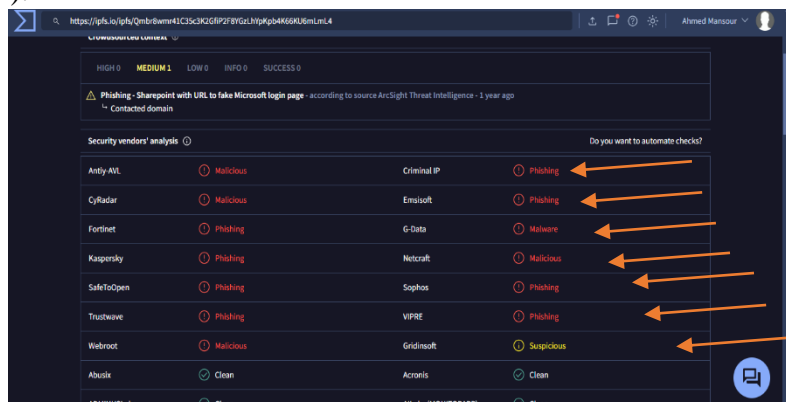
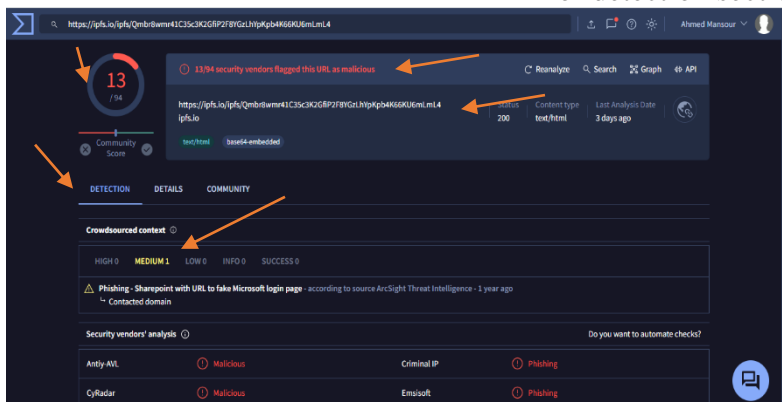
2. Process:

- The QR code from the email was saved and scanned using an online QR scanner (see attached screenshots of the saving process and QR scanner search results).
- The extracted link was:
<https://ipfs.io/ipfs/Qmbr8wmr41C35c3K2GfiP2F8YGzLhYpKpb4K66KU6mLmL4>.



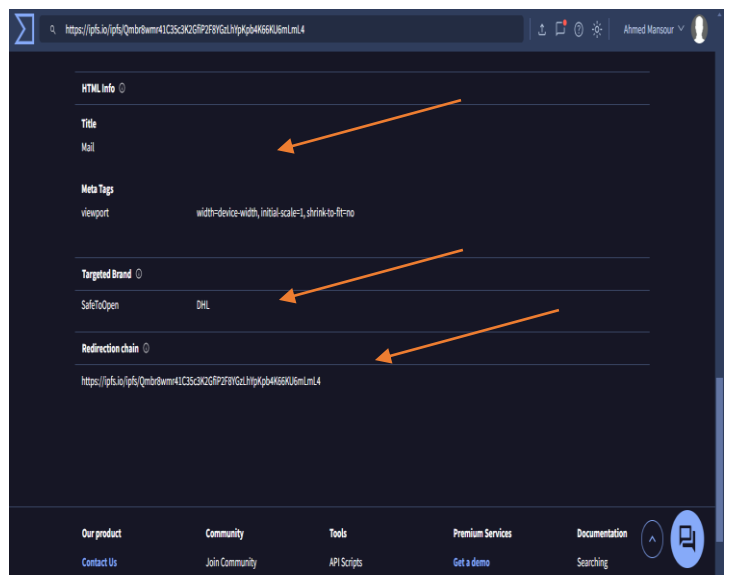
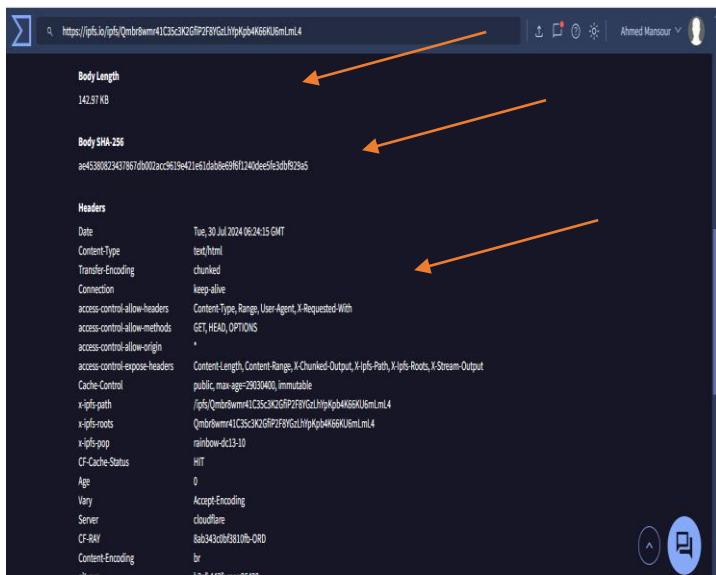
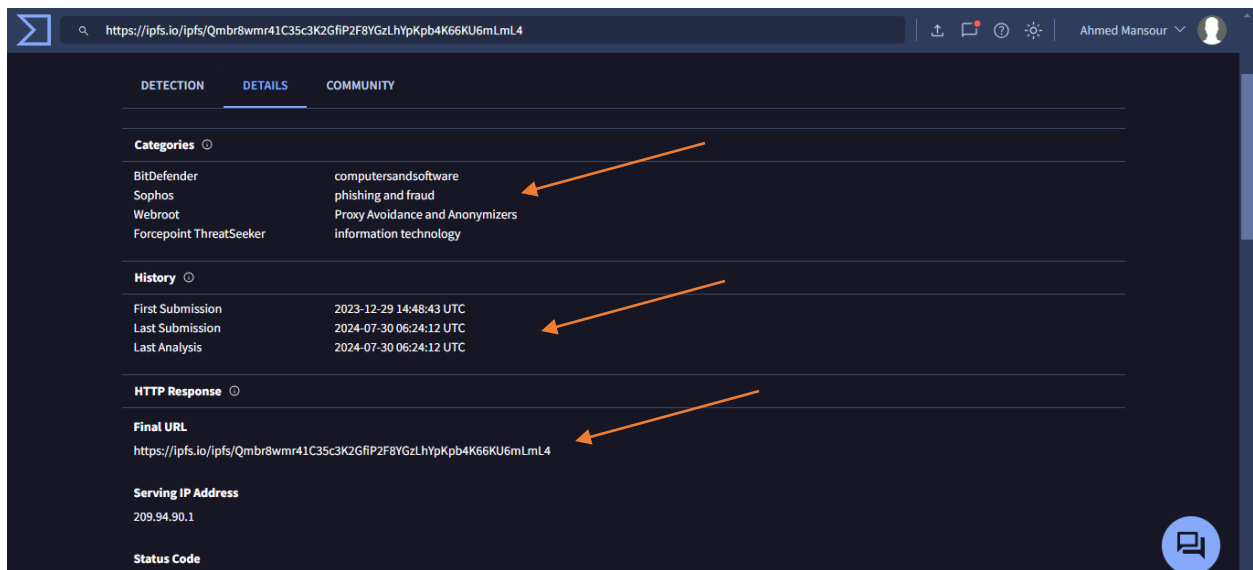
3. Analysis Results:

- **VirusTotal:**
 - **Detection:** 13/94 security vendors flagged the URL as malicious.
 - **Crowdsourced Context:** Phishing attempt using a fake Microsoft login page (source: ArcSight Threat Intelligence, 1 year ago).
 - **Security Vendors' Analysis:**
 -
 -
 - Multiple vendors (Antiy-AVL, Criminal IP, CyRadar, Emsisoft, Fortinet, G-Data, Kaspersky, Netcraft, SafeToOpen, Sophos, Trustwave, VIPRE, Webroot, and others) flagged the URL for phishing, malware, or malicious content (see attached screenshot of detection section).

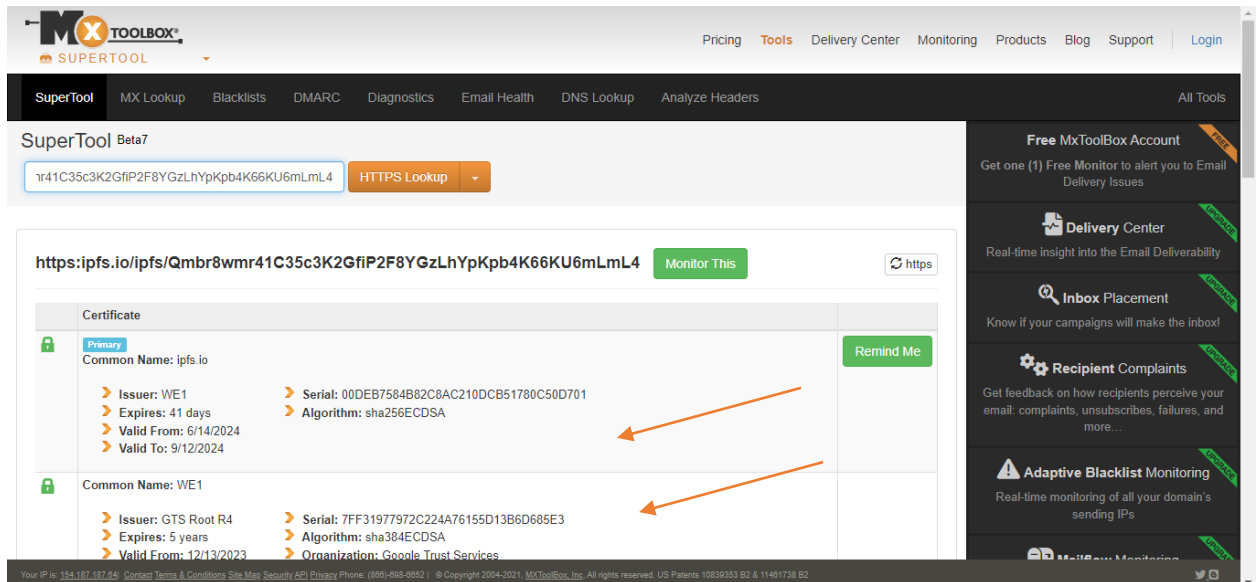


- **Details Section:**

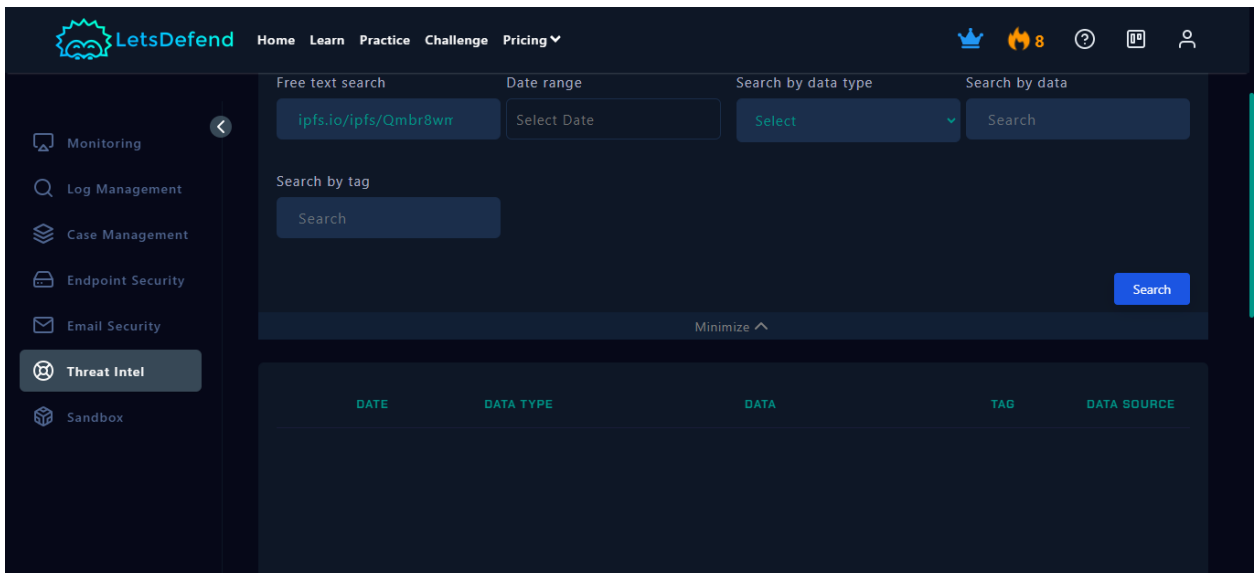
- **Categories:** Various categorizations, including phishing and fraud, proxy avoidance, and information technology.
- **History:** First submission on 2023-12-29; last analysis on 2024-07-30.
- **HTTP Response:**
 - **Final URL:**
`https://ipfs.io/ipfs/Qmbr8wmr41C35c3K2GfiP2F8YGzLhYpKpb4K66KU6mLmL4`
 - **Serving IP Address:** 209.94.90.1
 - **Status Code:** 200
 - Headers and other technical details are included (see attached screenshots from the details section).



- **MXToolbox:** The URL was checked and no malicious results were found (see attached screenshot).



- **LetsDefend.io:** The URL was analyzed, and no malicious indicators were found (see attached screenshot).



- **IP Address Analysis**

- Source: SMTP address from monitoring alert window.
- Tools Used: VirusTotal, MXToolbox, LetsDefend.io, AbuseIPDB.

- **VirusTotal Analysis**

- Detection: 11/93 security vendors flagged this IP address as malicious.
- Details:
 - IP Address: 158.69.201.47 (158.69.0.0/16)
 - Autonomous System (AS): 16276 (OVH SAS)
 - Location: Canada
- Security Vendors' Analysis:
 - Multiple vendors (Antiy-AVL, BitDefender, Criminal IP, CyRadar, ESET, Fortinet, G-Data, Lionic, Lumu, Sophos, VIPRE, ArcSight Threat Intelligence, Snort IP sample list, and Abusix) flagged the IP for phishing, malware, or malicious activity (see attached screenshot of the detection section).

158.69.201.47

11 / 93

Community Score

11/93 security vendors flagged this IP address as malicious

Reanalyze Similar Graph API

158.69.201.47 (158.69.0.0/16)

AS 16276 (OVH SAS)

tor

CA Last Analysis Date 2 days ago

DETECTION DETAILS RELATIONS COMMUNITY 25

Security vendors' analysis ⓘ Do you want to automate checks?

| | | | |
|-------------|-------------|------------------------------|--------------|
| Antiy-AVL | ⓘ Malicious | BitDefender | ⓘ Phishing |
| Criminal IP | ⓘ Malicious | CyRadar | ⓘ Malicious |
| ESET | ⓘ Phishing | Fortinet | ⓘ Malware |
| G-Data | ⓘ Phishing | Lionic | ⓘ Malicious |
| Lumu | ⓘ Malware | Sophos | ⓘ Malware |
| VIPRE | ⓘ Malware | ArcSight Threat Intelligence | ⓘ Suspicious |

- **VirusTotal Details Section**

- Basic Properties:
 - Network: 158.69.0.0/16
 - ASN: 16276 (OVH SAS)
 - RIR: ARIN
 - Country: CA
 - Continent: NA
- Organization Details:
 - Name: OVH Hosting, Inc.
 - Registration Date: 2015-06-15
 - Updated: 2023-01-30
 - Contact Information:
 - Abuse Email: abuse@ovh.ca
 - Tech Email: noc@ovh.net
 - Address: 800-1801 McGill College, Montreal, QC, H3A 2N4, Canada (see attached screenshots of the details section).

158.69.201.47

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Basic Properties ⓘ

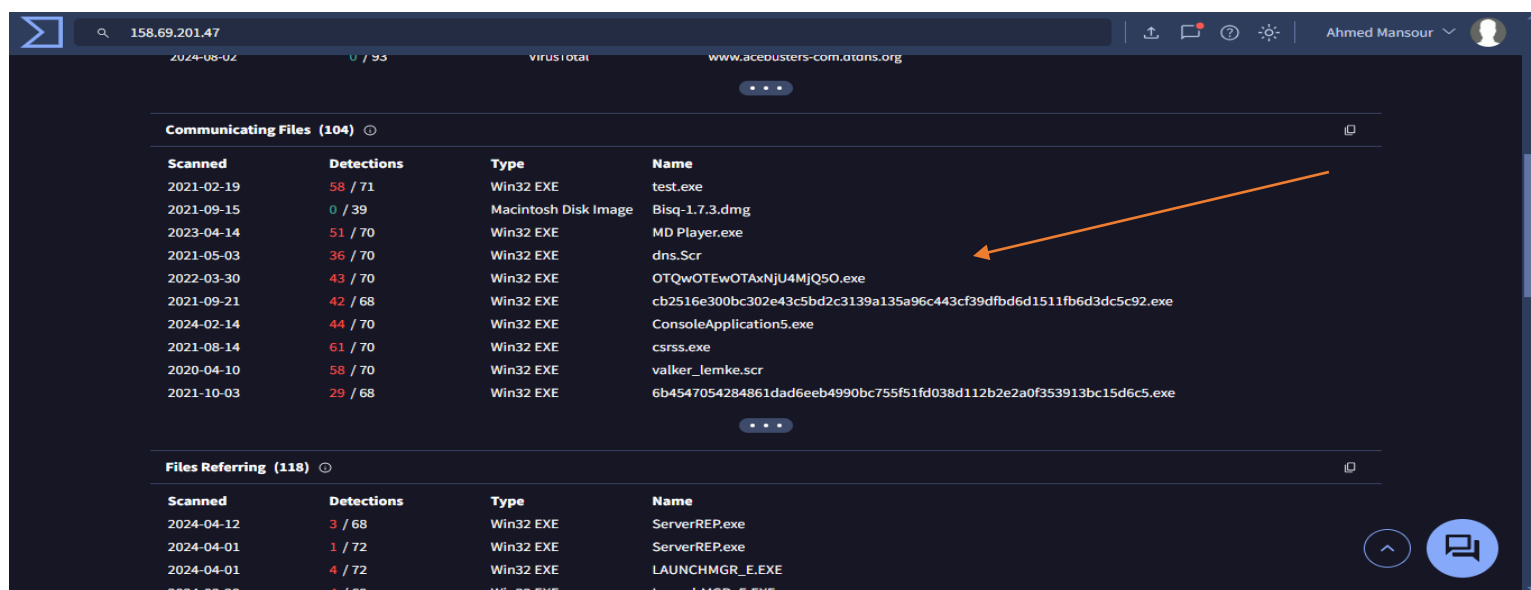
| | |
|----------------------------|---------------|
| Network | 158.69.0.0/16 |
| Autonomous System Number | 16276 |
| Autonomous System Label | OVH SAS |
| Regional Internet Registry | ARIN |
| Country | CA |
| Continent | NA |

Whois Lookup ⓘ

OrgId: HO-2
Address: 800-1801 McGill College
City: Montreal
StateProv: QC
PostalCode: H3A 2N4
Country: CA
RegDate: 2011-06-22
Updated: 2023-01-30
Ref: <https://rdap.arin.net/registry/entity/HO-2>
OrgTechHandle: NOC11876-ARIN
OrgTechName: NOC
OrgTechPhone: +1-855-684-5463
OrgTechEmail: noc@ovh.net
OrgTechRef: <https://rdap.arin.net/registry/entity/NOC11876-ARIN>

• VirusTotal Relations Section

- Communicating Files:
 - Examples of detected files linked to the IP include various executables with different detection rates, such as "test.exe," "MD Player.exe," "ConsoleApplication5.exe," "csrss.exe," and others (see attached screenshots of the relations section).
- Files Referring:
 - Files referring to the IP include "ServerREP.exe," "LAUNCHMGR_E.EXE," "bitcoin.d," "UpgradeAll.exe," and others (see attached screenshots of the relations section).



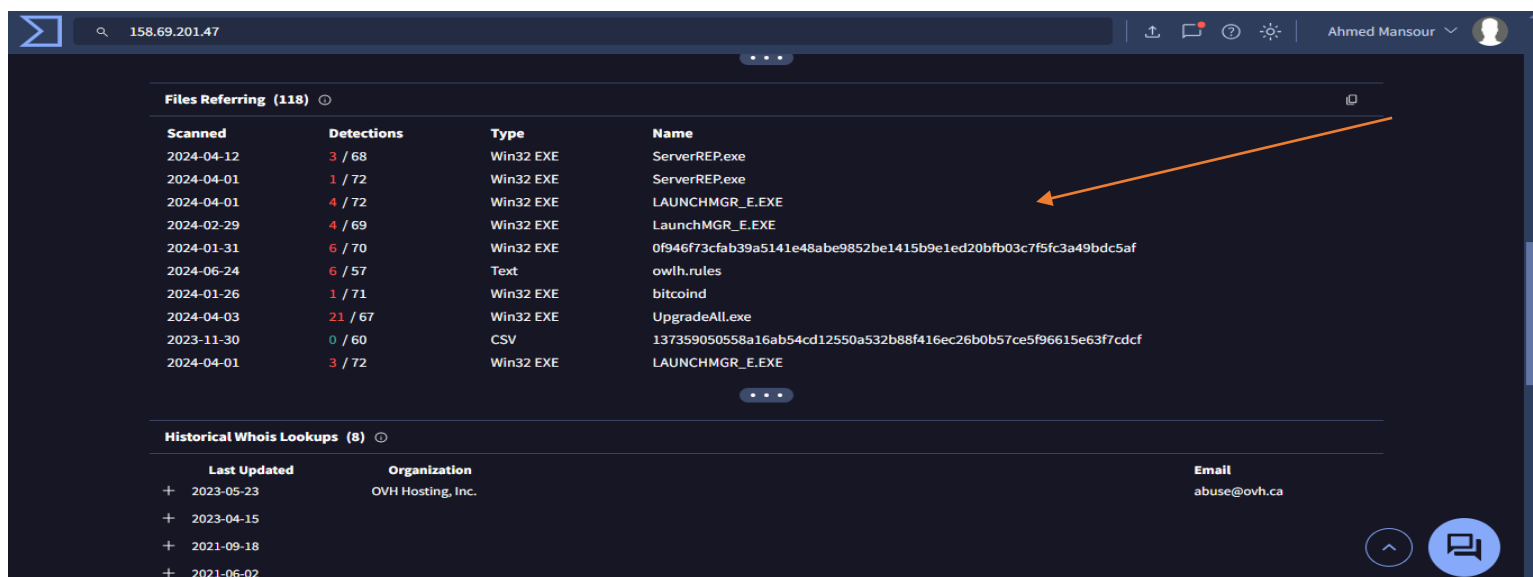
158.69.201.47

Communicating Files (104)

| Scanned | Detections | Type | Name |
|------------|------------|----------------------|--|
| 2021-02-19 | 58 / 71 | Win32 EXE | test.exe |
| 2021-09-15 | 0 / 39 | Macintosh Disk Image | Bisq-1.7.3.dmg |
| 2023-04-14 | 51 / 70 | Win32 EXE | MD Player.exe |
| 2021-05-03 | 36 / 70 | Win32 EXE | dns.Scr |
| 2022-03-30 | 43 / 70 | Win32 EXE | OTQwOTewOTaxNjU4MjQ5O.exe |
| 2021-09-21 | 42 / 68 | Win32 EXE | cb2516e300bc302e43c5bd2c3139a135a96c443cf39dfbd6d1511fb6d3dc5c92.exe |
| 2024-02-14 | 44 / 70 | Win32 EXE | ConsoleApplication5.exe |
| 2021-08-14 | 61 / 70 | Win32 EXE | csrss.exe |
| 2020-04-10 | 58 / 70 | Win32 EXE | valker_lemke.scr |
| 2021-10-03 | 29 / 68 | Win32 EXE | 6b4547054284861dad6eeb4990bc755f51fd038d112b2e2a0f353913bc15d6c5.exe |

Files Referring (118)

| Scanned | Detections | Type | Name |
|------------|------------|-----------|-----------------|
| 2024-04-12 | 3 / 68 | Win32 EXE | ServerREP.exe |
| 2024-04-01 | 1 / 72 | Win32 EXE | ServerREP.exe |
| 2024-04-01 | 4 / 72 | Win32 EXE | LAUNCHMGR_E.EXE |
| 2024-02-29 | 4 / 69 | Win32 EXE | LaunchMGR_F.EXE |



158.69.201.47

Files Referring (118)

| Scanned | Detections | Type | Name |
|------------|------------|-----------|--|
| 2024-04-12 | 3 / 68 | Win32 EXE | ServerREP.exe |
| 2024-04-01 | 1 / 72 | Win32 EXE | ServerREP.exe |
| 2024-04-01 | 4 / 72 | Win32 EXE | LAUNCHMGR_E.EXE |
| 2024-02-29 | 4 / 69 | Win32 EXE | LaunchMGR_E.EXE |
| 2024-01-31 | 6 / 70 | Win32 EXE | 0f946f73cfab39a5141e48abe9852be1415b9e1ed20bfb03c7f5fc3a49bdc5af |
| 2024-06-24 | 6 / 57 | Text | owlh.rules |
| 2024-01-26 | 1 / 71 | Win32 EXE | bitcoin.d |
| 2024-04-03 | 21 / 67 | Win32 EXE | UpgradeAll.exe |
| 2023-11-30 | 0 / 60 | CSV | 137359050558a16ab54cd12550a532b88f416ec26b0b57ce5f96615e63f7cdf |
| 2024-04-01 | 3 / 72 | Win32 EXE | LAUNCHMGR_E.EXE |

Historical Whois Lookups (8)

| Last Updated | Organization | Email |
|--------------|-------------------|--------------|
| + 2023-05-23 | OVH Hosting, Inc. | abuse@ovh.ca |
| + 2023-04-15 | | |
| + 2021-09-18 | | |
| + 2021-06-02 | | |

• VirusTotal Community Section

- Community Comments:
 - Numerous comments and reports are present regarding the suspicious activity associated with this IP (see attached screenshots of the community section).

The screenshot shows the VirusTotal interface for IP 158.69.201.47. The top bar includes a search icon, the IP address, and user controls for Ahmed Mansour. The main content is divided into two sections: 'Contained in Collections (4)' and 'Contained in Graphs (4)'. The 'Contained in Collections' section lists four collections, each with a stack icon, a title, update information, description, and IP count. The 'Contained in Graphs' section lists four graphs with user avatars, titles, timestamps, and icons. Four orange arrows point to the right side of the collection entries.

| Contained in Collections (4) | | | |
|------------------------------|--|--|--|
| | Honeypot IPs Collection Updated 3 hours ago by sicehice IP addresses connecting to HTTP and HTTPS honeypots. More info at https://sicehice.com IPs: 94.1 K | | |
| | TOR Exit Nodes Updated 4 hours ago by sicehice TOR Exit Nodes collected from the TOR Project. More info at https://sicehice.com IPs: 18.7 K | | |
| | TORPart1 Updated 7 months ago by TirusVotals TOR Exit Nodes IPs: 1.3 K | | |
| | Black list.db from Sftp Server (sshguard) Updated 8 months ago by SOC_SOC These IP's tried to access an sftp server and got banned after 10 attempts of illegal access IPs: 4.7 K | | |

| Contained in Graphs (4) | | | |
|-------------------------|-------------|-------------------|---------------------|
| | Hackme_4475 | Untitled graph | 2023-06-16 09:36:01 |
| | kela.preeti | Threat graph 2023 | 2023-06-16 07:43:37 |
| | AKVIS | C2 Network | 2023-04-22 16:27:10 |
| | msach271 | 0X158.HNS.TO | 2023-04-22 06:23:36 |

The screenshot shows the VirusTotal interface for IP 158.69.201.47. The top bar is identical to the previous screenshot. The main content is divided into two sections: 'Contained in Graphs (4)' and 'Voting details (10)'. The 'Contained in Graphs' section is identical to the previous screenshot. The 'Voting details' section shows a grid of voting details for the IP, with each row containing a user avatar, username, time ago, and a red '-1' vote. Two orange arrows point to the right side of the graph and voting details.

| Contained in Graphs (4) | | | |
|-------------------------|-------------|-------------------|---------------------|
| | Hackme_4475 | Untitled graph | 2023-06-16 09:36:01 |
| | kela.preeti | Threat graph 2023 | 2023-06-16 07:43:37 |
| | AKVIS | C2 Network | 2023-04-22 16:27:10 |
| | msach271 | 0X158.HNS.TO | 2023-04-22 06:23:36 |

| Voting details (10) | | | |
|---------------------|--------------|--------------|----|
| | ryankapa21 | 3 months ago | -1 |
| | rm19 | 4 months ago | -1 |
| | Dvy | 6 months ago | -1 |
| | Leo14 | 8 months ago | -1 |
| | whitehat_sr | 1 year ago | -1 |
| | jordan_smith | 1 year ago | -1 |
| | KillerPhish | 1 year ago | -1 |
| | Bot_kill | 1 year ago | -1 |
| | white.hat | 1 year ago | -1 |
| | virus_bank | | -1 |

- **MXToolbox Analysis**

- The IP was checked, and the results are documented (see attached screenshot).

The screenshot shows the MXToolbox SuperTool interface. At the top, there's a navigation bar with links like Pricing, Tools, Delivery Center, Monitoring, Products, Blog, Support, and Login. Below this, a sub-navigation bar lists various tools: SuperTool, MX Lookup, Blacklists, DMARC, Diagnostics, Email Health, DNS Lookup, and Analyze Headers. The main content area is titled 'SuperTool Beta7' and features a search bar with the IP '158.69.201.47' and a dropdown menu set to 'HTTPS Lookup'. Below the search bar, there's a section for 'https:158.69.201.47' with a 'Monitor This' button and a 'https' icon. A table displays the results of the HTTPS lookup:

| Test | Result |
|--------------|--|
| HTTP Connect | Unable to connect to the remote server (https://158.69.201.47) |

An orange arrow points to the 'Unable to connect to the remote server (https://158.69.201.47)' message in the table. Below the table, there are links for 'reverse lookup', 'smtp diag', 'blacklist', and 'subnet tool'. A footer note states: 'Reported by mxtoolbox.com on 8/2/2024 at 8:26:19 AM, just for you.' At the bottom, there's a section for 'https:ipfs.io/ipfs/Qmbr8wmr41C35c3K2GfiP2F8YGzLhYpKpb4K66KU6mLmL4' with a 'https' icon. On the right side, there's a sidebar with various services: 'Free MxToolBox Account', 'Delivery Center', 'Inbox Placement', 'Recipient Complaints', 'Adaptive Blacklist Monitoring', and 'MailBee Monitoring'.

- **LetsDefend.io Analysis**

- The IP was analyzed, and relevant findings are recorded (see attached screenshot).

The screenshot shows the LetsDefend.io interface. At the top, there's a navigation bar with links like Home, Learn, Practice, Challenge, and Pricing. Below this, there's a search bar with the IP '158.69.201.47' and a 'Search' button. The results are displayed in a table with columns: DATE, DATA TYPE, DATA, TAG, and DATA SOURCE. The table shows a single result:

| DATE | DATA TYPE | DATA | TAG | DATA SOURCE |
|-------------------------|-----------|---------------|----------|-------------|
| Jan, 09, 2024, 02:17 PM | IP | 158.69.201.47 | phishing | Anonymous |

An orange arrow points to the 'phishing' tag in the table. On the left side, there's a sidebar with various services: Monitoring, Log Management, Case Management, Endpoint Security, Email Security, Threat Intel, and Sandbox.

- **AbuseIPDB Analysis**

- This IP was reported 340 times.
- ISP: OVH Hosting Inc.
- Usage Type: Data Center/Web Hosting/Transit
- Hostname(s): 47.ip-158-69-201.net
- Domain Name: ovh.com
- Location: Montreal, Quebec, Canada (see attached screenshot from AbuseIPDB).

AbuseIPDB » 158.69.201.47

Check an IP Address, Domain Name, or Subnet
e.g. 154.187.187.64, microsoft.com, or 5.188.10.0/24

154.187.187.64

CHECK

158.69.201.47 was found in our database!

This IP was reported **340** times. Confidence of Abuse is **0%**: ?

0%

ISP OVH Hosting Inc.

Usage Type Data Center/Web Hosting/Transit

Hostname(s) 47.ip-158-69-201.net

Domain Name ovh.com

Country  Canada

City Montreal, Quebec

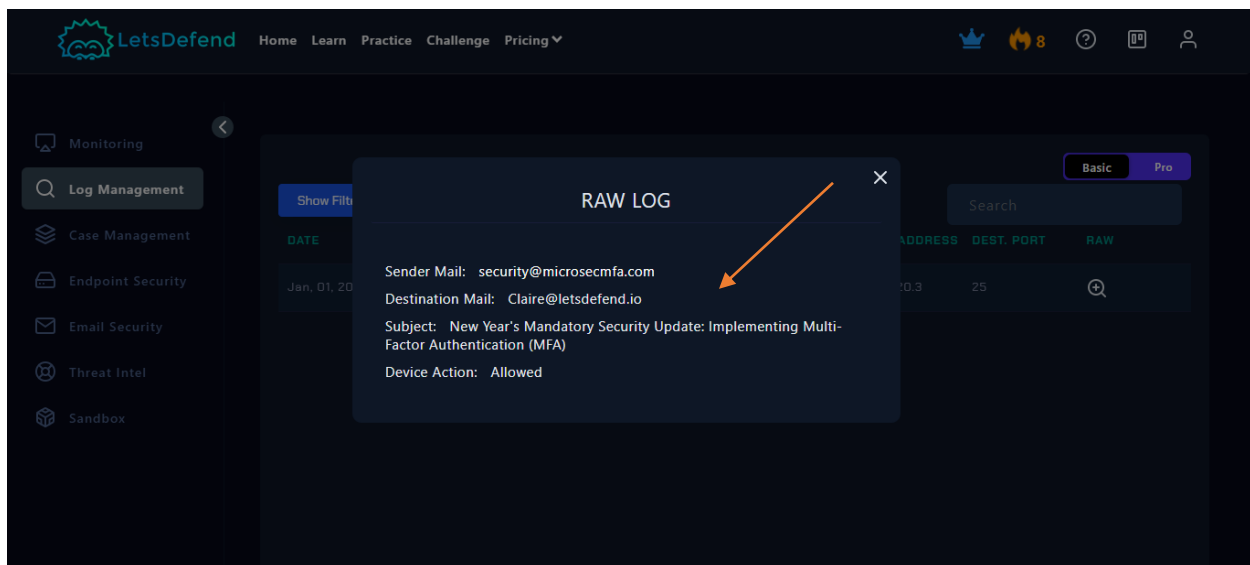
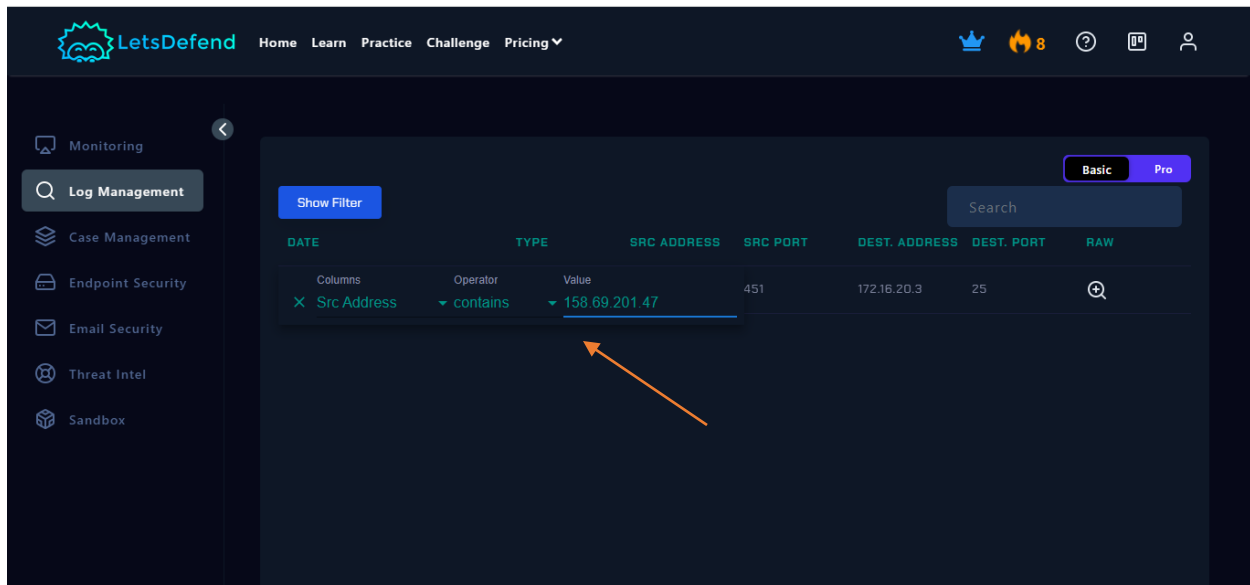
IP info including ISP, Usage Type, and Location provided by [IP2Location](#).

feedback

Analysis:

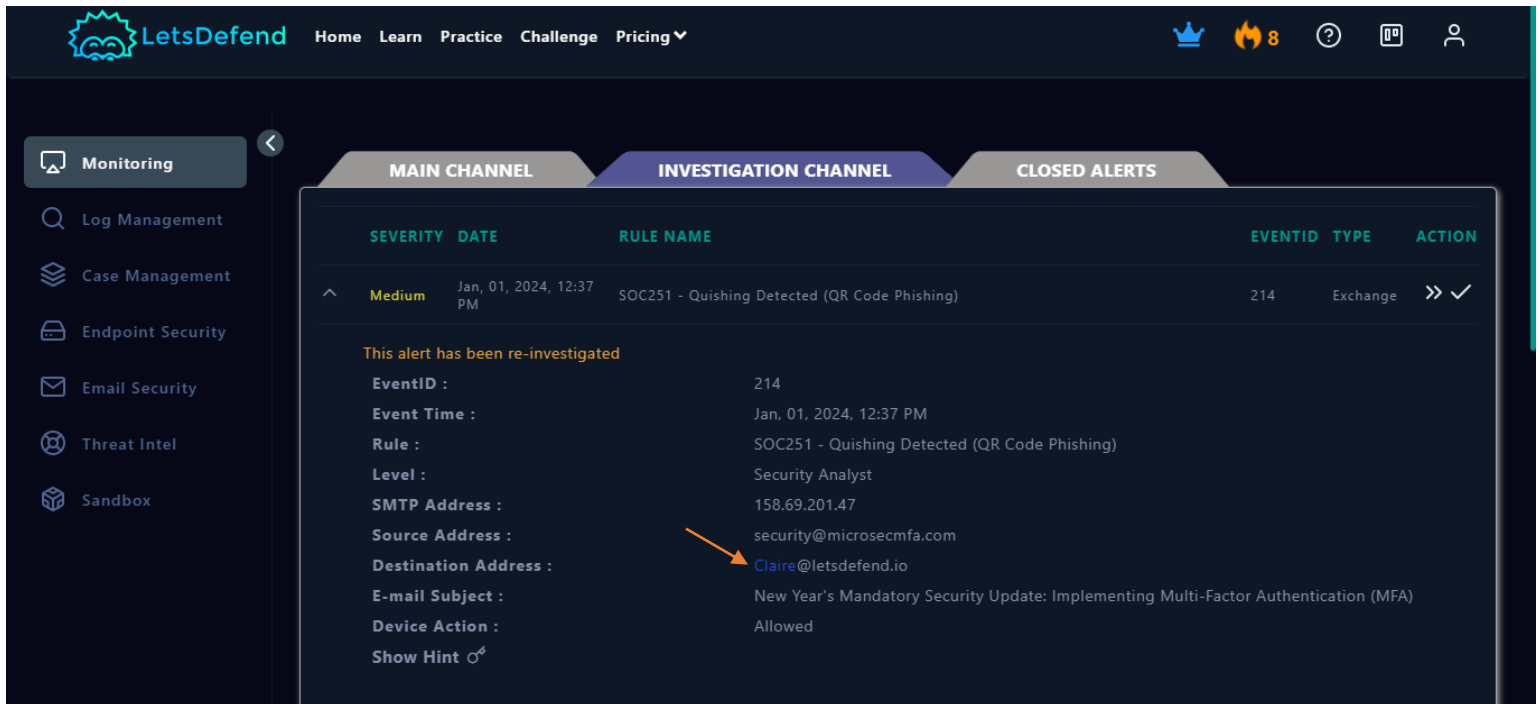
Log Management

- In our investigation, we accessed the Log Management section and entered the SMTP IP address into the "Source IP" field.
- The results from this query provided additional insights into the activities associated with the IP address.
- (See attached photos for detailed steps and results.)



Endpoint Security

- To determine whether the victim scanned the QR code, we navigated to the Endpoint Security section.
 - We entered the victim's name, obtained from the alert, into the relevant search field.
- We contain the device
- (See attached photos for the detailed steps.)

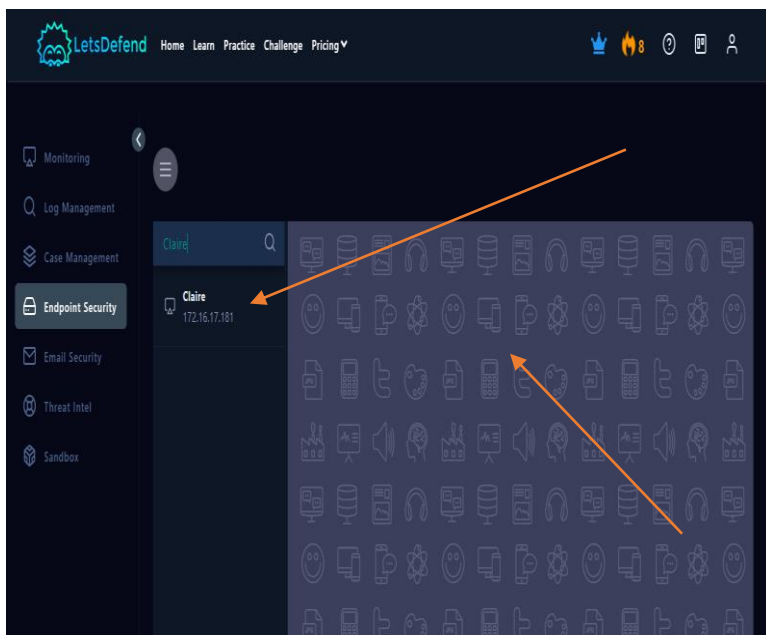


The screenshot shows the LetsDefend dashboard with the 'INVESTIGATION CHANNEL' selected. A table displays an alert with the following details:

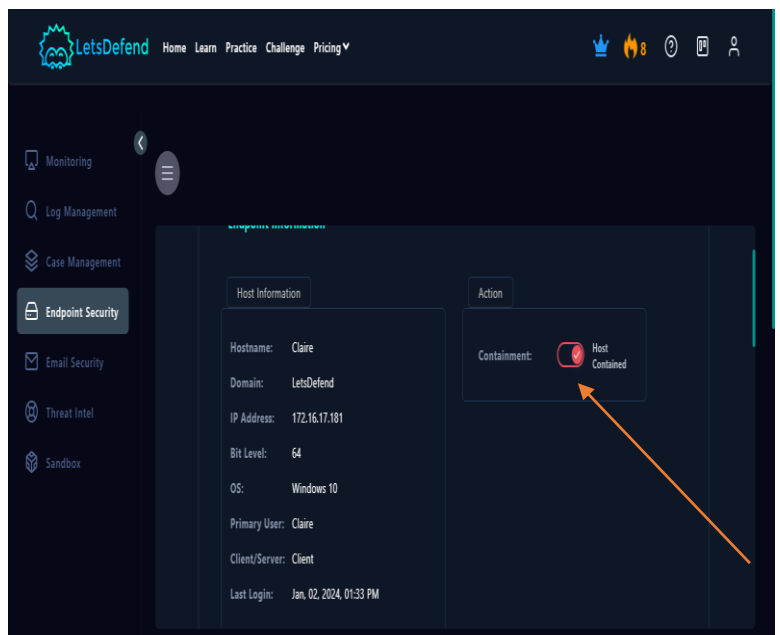
| SEVERITY | DATE | RULE NAME | EVENTID | TYPE | ACTION |
|----------|-------------------------|---|---------|----------|--------|
| Medium | Jan, 01, 2024, 12:37 PM | SOC251 - Quishing Detected (QR Code Phishing) | 214 | Exchange | >> ✓ |

Below the table, a message states: "This alert has been re-investigated". The details section includes:

- EventID : 214
- Event Time : Jan, 01, 2024, 12:37 PM
- Rule : SOC251 - Quishing Detected (QR Code Phishing)
- Level : Security Analyst
- SMTP Address : 158.69.201.47
- Source Address : security@microsecmfa.com
- Destination Address : Claire@letsdefend.io (highlighted with an orange arrow)
- E-mail Subject : New Year's Mandatory Security Update: Implementing Multi-Factor Authentication (MFA)
- Device Action : Allowed
- Show Hint ⚙



The screenshot shows the LetsDefend dashboard with the 'Endpoint Security' section selected. A search bar contains the text 'Claire'. Below the search bar, a grid of device icons is displayed. An orange arrow points from the search bar to the grid, and another orange arrow points from the 'Claire' entry in the search results to the grid.



The screenshot shows the LetsDefend dashboard with the 'Endpoint Security' section selected. The 'Host Information' tab is active, displaying details for the device 'Claire':

- Hostname: Claire
- Domain: LetsDefend
- IP Address: 172.16.17.181
- Bit Level: 64
- OS: Windows 10
- Primary User: Claire
- Client/Server: Client
- Last Login: Jan, 02, 2024, 01:33 PM

The 'Action' tab is also visible, showing the 'Containment' status. The 'Containment' toggle is turned on, and the text 'Host Contained' is displayed. An orange arrow points to the 'Containment' toggle.

Conclusion

Event Overview: On January 1, 2024, at 12:37 PM, a phishing alert (Event ID: 214) was triggered, identifying a deceptive email targeting internal users with a QR code link. Flagged under SOC282, the email prompted an investigation leveraging various detection tools, including VirusTotal, MXToolbox, and LetsDefend.io, to thoroughly analyze potential threat indicators.

Detection and Analysis:

- **Email Source Analysis:** The originating email was checked across VirusTotal, MXToolbox, and LetsDefend.io, with no initial detections.
- **QR Code Investigation:** A QR code in the email directed users to a URL (<https://ipfs.io/ipfs/Qmbr8wmr41C35c3K2GfiP2F8YGzLhYpKpb4K66KU6mLmL4>) flagged by 13 out of 94 security vendors on VirusTotal as malicious. This URL was linked to a fake Microsoft login page, indicating a targeted phishing attempt.
- **IP Address Analysis:** The associated SMTP IP address (158.69.201.47) was scrutinized using VirusTotal, MXToolbox, LetsDefend.io, and AbuseIPDB. It was flagged by 11 out of 93 security vendors for hosting phishing and malware activities. This IP, associated with OVH SAS in Canada, has a history of suspicious activities.
- **Endpoint Security Verification:** Endpoint security checks confirmed that the victim's device was potentially compromised upon interacting with the malicious QR code. Immediate containment actions were taken, and further review showed no anomalies.
- **Comprehensive Threat Intelligence:** The investigation utilized advanced tools to gather extensive intelligence, confirming the incident as an external attack aimed at compromising sensitive information.

Recommendations:

- **User Awareness Training:** Enhance phishing awareness programs for employees to recognize and avoid similar threats.
- **Enhanced Email Filtering:** Implement advanced filtering and threat detection mechanisms to prevent future attacks.
- **Continuous Monitoring:** Keep monitoring the identified IP addresses and domains for any further suspicious activity.
- **User Education on QR Codes:** Educate users about the dangers of interacting with QR codes from untrusted sources.

Conclusion:

The investigation's thoroughness and the team's collaborative efforts ensured the swift identification and containment of this phishing attack, thereby minimizing potential damage. The attached documentation provides a detailed account of the steps taken and the evidence gathered. This event highlights our proactive stance in identifying, analyzing, and mitigating cybersecurity threats, reaffirming our commitment to maintaining robust cybersecurity defenses and ensuring the safety and integrity of our systems and data.

Recommendations

- **Ongoing Monitoring:** Continue surveillance of the identified IP addresses and domains for any additional suspicious activities.
- **User Education:** Inform users about the risks associated with interacting with QR codes from untrusted sources.
- **Enhanced Security Measures:** Improve email security filters and implement advanced threat detection systems to prevent similar future incidents.

The team's collaborative and thorough approach ensured the prompt identification and containment of this phishing attempt, significantly reducing potential damage. The attached documentation offers a comprehensive account of the investigation process and the evidence collected, highlighting our unwavering commitment to robust cybersecurity defenses.

This incident and our subsequent actions exemplify our proactive approach to identifying, analyzing, and mitigating cybersecurity threats, ensuring the safety and integrity of our systems and data.