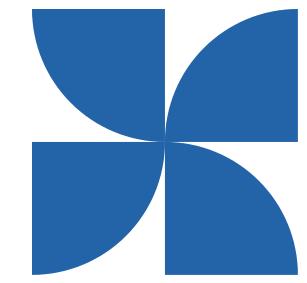


Network Traffic Analysis & Incident Investigation Using PCAP



Presented by

Nikhil Kumar, ERP ID: [6606652]

Certificate of Completion

This is to certify that

Nikhil Kumar, ERP ID: [6606652]

has successfully completed the project titled

“Network Traffic Analysis & Incident Investigation Using PCAP (SOC Analyst Simulation)”

during the semester of **[Semester]** under the subject of **Cyber Security Minor**.

This project demonstrates a comprehensive understanding of network security protocols and incident analysis techniques, adhering to academic standards set forth by Rungta college of engineering and technology at **CSVTU**.

Date: January 6, 2026

Signature: _____

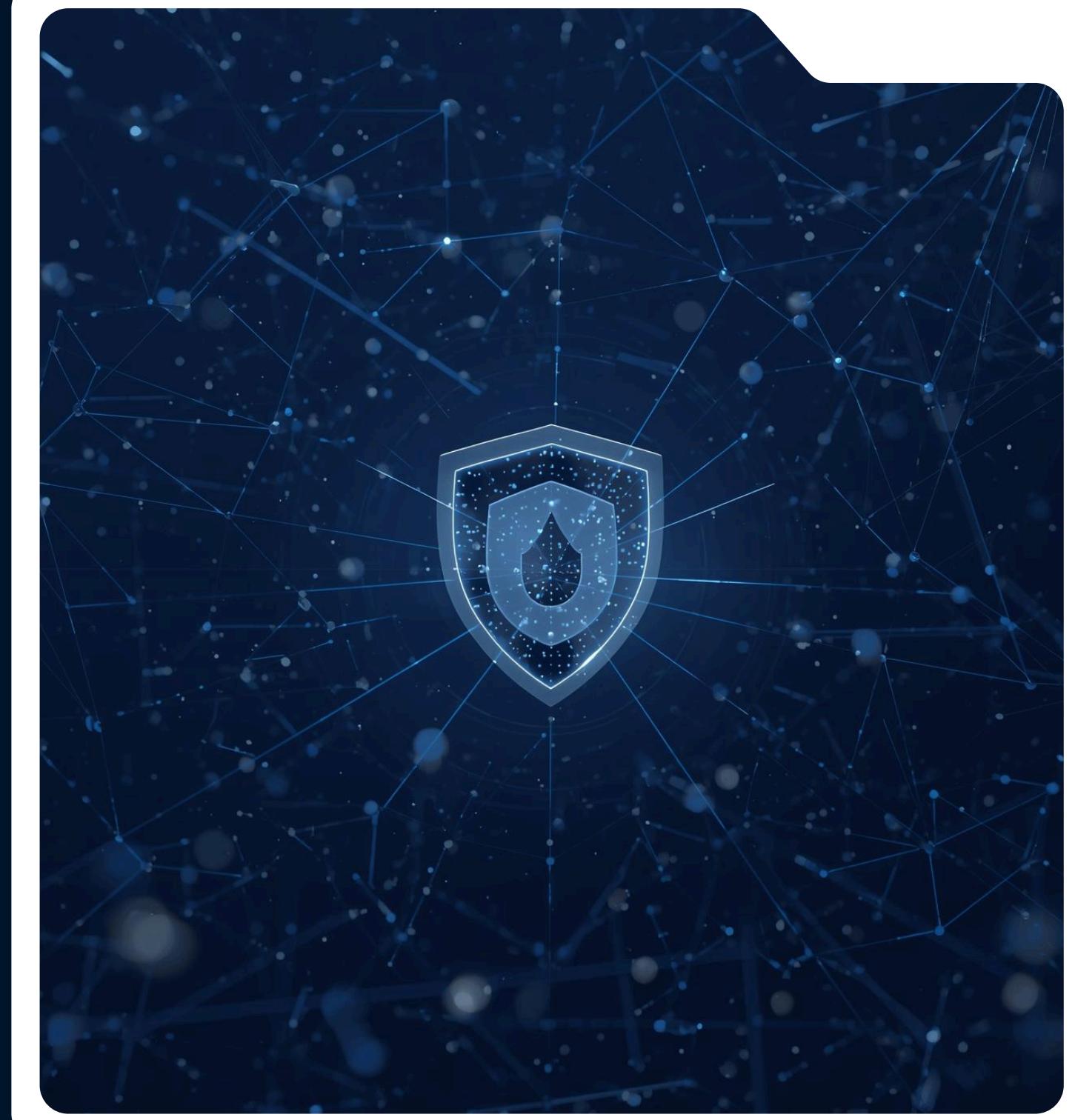
Declaration of Originality

I hereby declare that this project report titled “Network Traffic Analysis & Incident Investigation Using PCAP (SOC Analyst Simulation)” is my original work. I have conducted the research, analysis, and writing independently, adhering to the ethical guidelines of academic integrity.

- All sources of information and data used in this report are properly cited.
- No part of this work has been submitted for any other academic purpose.
- I understand the importance of plagiarism-free submissions and have ensured that this report complies with the standards set by my institution.

Acknowledgement

I would like to express my sincere gratitude to my project guide and mentors for their invaluable support and guidance throughout this project. Their insights helped shape the direction of my work, enabling me to successfully navigate the complexities of network traffic analysis.



Abstract

Summary of Project Findings and Objectives

This project focuses on **network traffic analysis** and incident investigation utilizing PCAP files, simulating a SOC analyst's role to enhance cybersecurity knowledge and practical skills.

Table of Contents

Overview of Project Sections

1. Introduction
2. Tools & Technologies Used
3. Methodology / Investigation Process
4. Results and Discussion
5. Conclusion



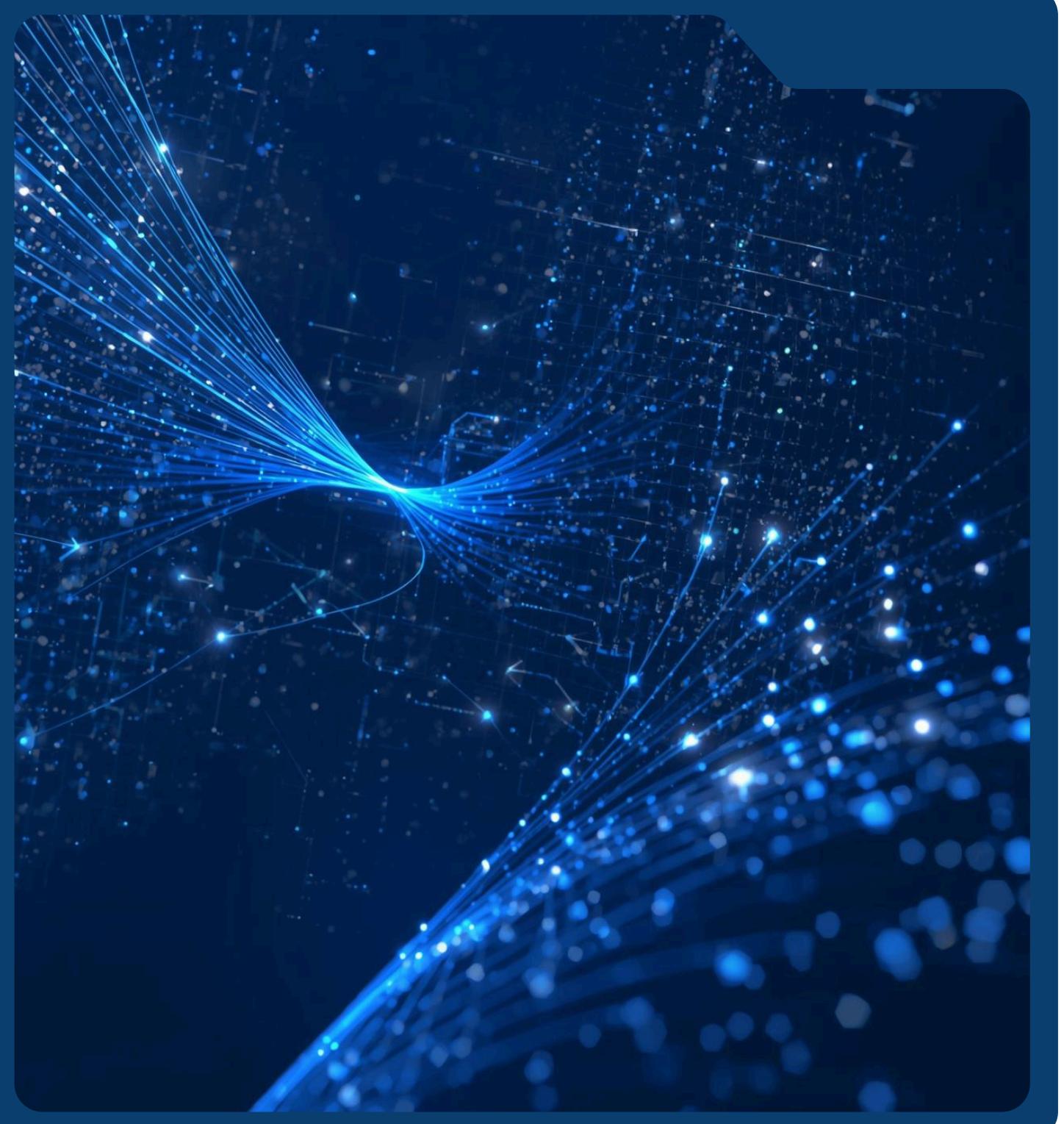
Introduction

This section delves into **network traffic analysis** and the importance of incident investigation in cybersecurity. By analyzing packet data and traffic patterns, organizations can enhance their security posture, detect anomalies, and efficiently respond to potential threats, ensuring robust network defense mechanisms.



Tools Required

1. Wireshark (latest version)
2. PCAP file
3. 7-zip/WinRAR
4. Windows/Linux system



What is SOC?

A Security Operations Center (SOC) is a centralized team responsible for monitoring, detecting, and responding to cybersecurity threats within an organization. It continuously analyzes network traffic, system logs, and security alerts to identify and prevent cyber attacks.



What is PCAP?

PCAP (Packet Capture) is a file format used to store captured network traffic. It contains detailed information about data packets such as source IP, destination IP, protocol, ports, and payload.

Objectives of investigation..

The main objectives of this investigation are:

- ◆ *To analyze network traffic using a PCAP file.*
- ◆ *To identify the attacker and victim systems involved in the incident.*
- ◆ *To detect reconnaissance activities such as port scanning.*
- ◆ *To analyze suspicious HTTP traffic and file transfers.*
- ◆ *To extract the transferred ZIP file and retrieve the flag.*
- ◆ *To document the findings in a structured SOC analyst report.*

A large, three-dimensional blue letter 'W' is centered on a dark blue background. The background features a subtle circuit board pattern with glowing blue lines and nodes.

150

Traffic Analyzed Weekly



95%

Accuracy Rate of Analysis



10 million

Packets Captured Daily

Methodology Overview





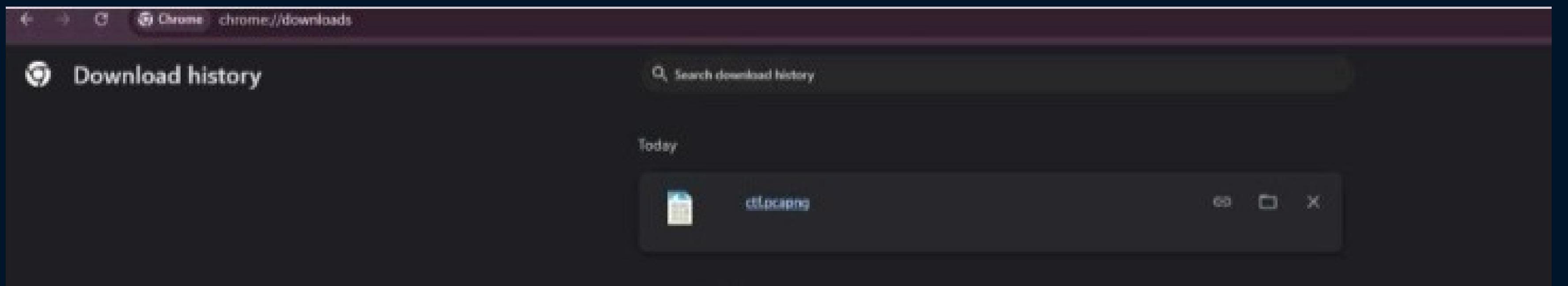
STEP 1: Download Required Files

1. Download PCAP file

→[https://drive.google.com/file/d/1XlqKcBkLO4NWVJKZUYnEnLTvwoGe8tHN/view
usp=sharing](https://drive.google.com/file/d/1XlqKcBkLO4NWVJKZUYnEnLTvwoGe8tHN/view?usp=sharing)

2. Download Wireshark

- ◆ Download from: <https://www.wireshark.org>
- ◆ Install with default settings
- ◆ Allow Npcap during installation





STEP 2: Open PCAP File in Wireshark

1. Open Wireshark
2. Click File → Open
3. Select the downloaded .pcap file
4. Click Open

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

| No. | Time | Source | Destination | Protocol | Length Info |
|-----|--------------|-------------------------------|-------------|----------|--|
| 1 | 0.000000000 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 2 | 0.001000252 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 3 | 0.002191773 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 4 | 0.012713902 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 5 | 5.838169000 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 6 | 5.842052602 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 7 | 5.842053185 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 8 | 5.856790610 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 9 | 6.143700415 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 142 Router Advertisement from f4:c:a:e7:b7:fa:3c |
| 10 | 6.157309771 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 11 | 7.012577604 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 12 | 11.805012481 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 13 | 11.807187503 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 14 | 11.808393853 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 15 | 11.820822978 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 16 | 17.815377637 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 17 | 17.816573072 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 18 | 17.828769683 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 19 | 18.020276993 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 20 | 18.033220178 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 21 | 23.808254285 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 22 | 23.810797177 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 23 | 23.812087017 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 24 | 23.820800427 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |
| 25 | 29.811430421 | 192.168.29.1 | 224.0.0.1 | IGMPv3 | 60 Membership Query, general |
| 26 | 29.812439213 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 27 | 29.813712888 | fe80::f6ca:e7ff:feb.. ff02::1 | | ICMPv6 | 90 Multicast Listener Query |
| 28 | 29.833352991 | fe80::20c:29ff:fea.. ff02::16 | | ICMPv6 | 110 Multicast Listener Report Message v2 |

Frame 1: Packet, 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface eth0, id 0
Ethernet II, Src: Arcadyan_b7:fa:3c (f4:c:a:e7:b7:fa:3c), Dst: IPv4mcast_01 (01:00:5e:00:00:01)
Internet Protocol Version 4, Src: 192.168.29.1, Dst: 224.0.0.1
Internet Group Management Protocol

| | | |
|------|---|-----------|
| 0000 | 01 00 5e 00 00 01 f4 ca e7 b7 fa 3c 08 00 46 00 | ^.....<-F |
| 0010 | 00 24 f8 44 40 00 01 02 2e e4 c0 a8 1d 01 e0 00 | \$D@..... |
| 0020 | 00 01 94 04 00 00 11 03 ed f6 00 00 00 00 01 06 | |
| 0030 | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | |

Activate Windows
Go to Settings to activate Windows.

Packets: 6734

Profile: Default

25°C Partly cloudy 17:57 ENG 03-01-2026



STEP 3: Identify Attacker & Victim IP

1. Go to:

Statistics → Conversations → IPv4

2. Observe:

- ◆ One IP sending packets to many ports
- ◆ One IP receiving most traffic



Attacker IP:

- ◆ Sends SYN packets to multiple ports



Victim IP:

- ◆ Target of scanning + HTTP communication

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

Wireshark · Endpoints · ctf.pcapng

Endpoint Settings

Ethernet · 8 IPv4 · 7 TCP · 4345 UDP · 18

| Address | Packets | Bytes | Tx Packets | Tx Bytes | Rx Packets | Rx Bytes | Country | City | Latitude | Longitude | AS Number | AS Organization |
|----------------|---------|--------|------------|-----------|------------|-----------|---------|------|----------|-----------|-----------|-----------------|
| 34.36.137.203 | 56 | 23 kB | 27 | 15 kB | 29 | 8 kB | | | | | | |
| 34.107.221.82 | 17 | 2 kB | 8 | 752 bytes | 9 | 912 bytes | | | | | | |
| 34.107.243.93 | 33 | 11 kB | 16 | 6 kB | 17 | 5 kB | | | | | | |
| 192.168.29.1 | 77 | 7 kB | 53 | 5 kB | 24 | 2 kB | | | | | | |
| 192.168.29.10 | 5,936 | 573 kB | 3,015 | 412 kB | 2,921 | 161 kB | | | | | | |
| 192.168.29.155 | 6,090 | 614 kB | 3,000 | 177 kB | 3,090 | 437 kB | | | | | | |
| 224.0.0.1 | 29 | 2 kB | 0 | 0 bytes | 29 | 2 kB | | | | | | |

Copy

Map

Protocol

- FDDI
- IEEE 802.11
- IEEE 802.15.4
- ILNP
- IPv4
- IPv6
- IPX
- JXTA
- LTP
- MPTCP
- NCP
- openSAFETY
- RSVP
- SCTP
- SLL
- TCP
- Token-Ring
- UDP
- USB

Filter list for specific type

Activ Go to

ctf.pcapng

Packets: 6734

Type here to search

24°C Mostly

Wireshark - Conversations - ctf.pcapng

Conversation Settings

- Name resolution
- Absolute start time
- Display raw data
- Limit to display filter

Copy Follow Stream... Graph... I/O Graphs

Protocol

- Bluetooth
- BPv7
- DCCP
- DNP 3.0
- Ethernet
- FC
- FDDI
- IEEE 802.11
- IEEE 802.15.4
- ILNP
- IPv4
- IPv6
- IPX
- JXTA
- LTP
- MPTCP
- NCP
- openSAFETY
- RSVP
- SCTP
- SLL
- TCP
- Token-Ring
- UDP
- USB
- ZigBee

Filter list for specific type

Ethernet · 8 IPv4 · 6 IPv6 · 9 NCP TCP · 2910 UDP · 15

| Address A | Port A | Address B | Port B | Packets | Bytes | Stream ID | Packets A → B | Bytes A → B | Packets B → A | Bytes B → A | Abs Start | Duration | Bits/s A → B | Bits/s B → A | Flows |
|----------------|--------|----------------|--------|---------|-----------|-----------|---------------|-------------|---------------|-------------|--------------|-----------|--------------|--------------|-------|
| 192.168.29.10 | 65499 | 192.168.29.155 | 35219 | 2 | 132 bytes | 422 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.036 | 0.000105 | | | 0 |
| 192.168.29.10 | 65500 | 192.168.29.155 | 1642 | 2 | 132 bytes | 423 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.036 | 0.000007 | | | 0 |
| 192.168.29.10 | 65501 | 192.168.29.155 | 30649 | 2 | 132 bytes | 424 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.036 | 0.000008 | | | 0 |
| 192.168.29.10 | 65502 | 192.168.29.155 | 55800 | 2 | 132 bytes | 425 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.036 | 0.000003 | | | 0 |
| 192.168.29.10 | 65503 | 192.168.29.155 | 3305 | 2 | 132 bytes | 426 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.036 | 0.000002 | | | 0 |
| 192.168.29.10 | 65504 | 192.168.29.155 | 23013 | 2 | 132 bytes | 427 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.140 | 0.000045 | | | 0 |
| 192.168.29.10 | 65505 | 192.168.29.155 | 58395 | 2 | 132 bytes | 428 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.140 | 0.000008 | | | 0 |
| 192.168.29.10 | 65506 | 192.168.29.155 | 32887 | 2 | 132 bytes | 429 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.141 | 0.000007 | | | 0 |
| 192.168.29.10 | 65507 | 192.168.29.155 | 9587 | 2 | 132 bytes | 430 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.141 | 0.000006 | | | 0 |
| 192.168.29.10 | 65508 | 192.168.29.155 | 16089 | 2 | 132 bytes | 431 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.141 | 0.000005 | | | 0 |
| 192.168.29.10 | 65509 | 192.168.29.155 | 9587 | 2 | 132 bytes | 432 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.242 | 0.000059 | | | 0 |
| 192.168.29.10 | 65510 | 192.168.29.155 | 32887 | 2 | 132 bytes | 433 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.242 | 0.000019 | | | 0 |
| 192.168.29.10 | 65511 | 192.168.29.155 | 58395 | 2 | 132 bytes | 434 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.242 | 0.000009 | | | 0 |
| 192.168.29.10 | 65512 | 192.168.29.155 | 23013 | 2 | 132 bytes | 435 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.243 | 0.000013 | | | 0 |
| 192.168.29.10 | 65513 | 192.168.29.155 | 16089 | 2 | 132 bytes | 436 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.243 | 0.000013 | | | 0 |
| 192.168.29.10 | 65514 | 192.168.29.155 | 52984 | 2 | 132 bytes | 437 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.346 | 0.000068 | | | 0 |
| 192.168.29.10 | 65515 | 192.168.29.155 | 3109 | 2 | 132 bytes | 438 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.346 | 0.000012 | | | 0 |
| 192.168.29.10 | 65516 | 192.168.29.155 | 53860 | 2 | 132 bytes | 439 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.346 | 0.000022 | | | 0 |
| 192.168.29.10 | 65517 | 192.168.29.155 | 42153 | 2 | 132 bytes | 440 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.346 | 0.000011 | | | 0 |
| 192.168.29.10 | 65518 | 192.168.29.155 | 35935 | 2 | 132 bytes | 441 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.347 | 0.000011 | | | 0 |
| 192.168.29.10 | 65519 | 192.168.29.155 | 35935 | 2 | 132 bytes | 442 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.452 | 0.000038 | | | 0 |
| 192.168.29.10 | 65520 | 192.168.29.155 | 42153 | 2 | 132 bytes | 443 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.452 | 0.000011 | | | 0 |
| 192.168.29.10 | 65521 | 192.168.29.155 | 53860 | 2 | 132 bytes | 444 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.452 | 0.000007 | | | 0 |
| 192.168.29.10 | 65522 | 192.168.29.155 | 3109 | 2 | 132 bytes | 445 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.452 | 0.000009 | | | 0 |
| 192.168.29.10 | 65523 | 192.168.29.155 | 52984 | 2 | 132 bytes | 446 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.452 | 0.000004 | | | 0 |
| 192.168.29.10 | 65524 | 192.168.29.155 | 7901 | 2 | 132 bytes | 447 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.557 | 0.000044 | | | 0 |
| 192.168.29.10 | 65525 | 192.168.29.155 | 53962 | 2 | 132 bytes | 448 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.558 | 0.000025 | | | 0 |
| 192.168.29.10 | 65526 | 192.168.29.155 | 34737 | 2 | 132 bytes | 449 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.558 | 0.000014 | | | 0 |
| 192.168.29.10 | 65527 | 192.168.29.155 | 50199 | 2 | 132 bytes | 450 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.558 | 0.000060 | | | 0 |
| 192.168.29.10 | 65528 | 192.168.29.155 | 16650 | 2 | 132 bytes | 451 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.558 | 0.000018 | | | 0 |
| 192.168.29.10 | 65529 | 192.168.29.155 | 16650 | 2 | 132 bytes | 452 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.664 | 0.000045 | | | 0 |
| 192.168.29.10 | 65530 | 192.168.29.155 | 50199 | 2 | 132 bytes | 453 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.664 | 0.000023 | | | 0 |
| 192.168.29.10 | 65531 | 192.168.29.155 | 34737 | 2 | 132 bytes | 454 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.664 | 0.000013 | | | 0 |
| 192.168.29.10 | 65532 | 192.168.29.155 | 53962 | 2 | 132 bytes | 455 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.664 | 0.000018 | | | 0 |
| 192.168.29.10 | 65533 | 192.168.29.155 | 7901 | 2 | 132 bytes | 456 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.664 | 0.000009 | | | 0 |
| 192.168.29.10 | 65534 | 192.168.29.155 | 52978 | 2 | 132 bytes | 457 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.769 | 0.000047 | | | 0 |
| 192.168.29.10 | 65535 | 192.168.29.155 | 22298 | 2 | 132 bytes | 458 | 1 | 78 bytes | 1 | 54 bytes | 01:21:12.769 | 0.000015 | | | 0 |
| 192.168.29.155 | 49778 | 34.36.137.203 | 443 | 23 | 9 kB | 823 | 12 | 3 kB | 11 | 6 kB | 01:21:20.260 | 0.384824 | 60 kbps | 122 kbps | 5 |
| 192.168.29.155 | 39570 | 34.107.221.82 | 80 | 17 | 2 kB | 867 | 9 | 912 bytes | 8 | 752 bytes | 01:21:20.951 | 51.108764 | 142 bits/s | 117 bits/s | 2 |
| 192.168.29.155 | 47258 | 34.107.243.93 | 443 | 18 | 7 kB | 854 | 9 | 3 kB | 9 | 4 kB | 01:21:20.731 | 0.117531 | 183 kbps | 294 kbps | 5 |
| 192.168.29.155 | 47264 | 34.107.243.93 | 443 | 15 | 4 kB | 860 | 8 | 3 kB | 7 | 2 kB | 01:21:20.820 | 0.660972 | 31 kbps | 20 kbps | 6 |
| 192.168.29.155 | 52822 | 192.168.29.10 | 8000 | 21 | 178 kB | 1833 | 10 | 1 kB | 11 | 177 kB | 01:21:40.601 | 0.010563 | 802 kbps | 133 Mbps | 2 |
| 192.168.29.155 | 55818 | 192.168.29.10 | 8000 | 11 | 2 kB | 1524 | 5 | 676 bytes | 6 | 970 bytes | 01:21:34.301 | 0.007581 | 713 kbps | 1023 kbps | 2 |
| 192.168.29.155 | 55826 | 192.168.29.10 | 8000 | 12 | 2 kB | 1525 | 6 | 739 bytes | 6 | 1 kB | 01:21:34.350 | 0.005385 | | | |

| Conversation Settings | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|----------|-----|------------|-----|-----|---------------|--------|----------------|--------|---------|----------|-----------|---------------|------------------|---------------|-------------|---------------|-------------|---------------|----------|--------------|--------------|-------|
| Ethernet · 2 | IPv4 · 4 | IPv6 · 5 | NCP | TCP · 2910 | UDP | USB | Address A | Port A | Address B | Port B | Packets | Bytes | Stream ID | Total Packets | Percent Filtered | Packets A → B | Bytes A → B | Packets B → A | Bytes B → A | Rel Start | Duration | Bits/s A → B | Bits/s B → A | Flows |
| <input type="checkbox"/> Name resolution | | | | | | | 192.168.29.10 | 65499 | 192.168.29.155 | 35219 | 1 | 78 bytes | 422 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.416025314 | 0.000105 | | | 0 |
| <input checked="" type="checkbox"/> Absolute start time | | | | | | | 192.168.29.10 | 65500 | 192.168.29.155 | 1642 | 1 | 78 bytes | 423 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.416303988 | 0.000007 | | | 0 |
| <input checked="" type="checkbox"/> Display raw data | | | | | | | 192.168.29.10 | 65501 | 192.168.29.155 | 30649 | 1 | 78 bytes | 424 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.416392644 | 0.000008 | | | 0 |
| <input checked="" type="checkbox"/> Limit to display filter | | | | | | | 192.168.29.10 | 65502 | 192.168.29.155 | 55800 | 1 | 78 bytes | 425 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.416479175 | 0.000003 | | | 0 |
| | | | | | | | 192.168.29.10 | 65503 | 192.168.29.155 | 3305 | 1 | 78 bytes | 426 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.416535710 | 0.000002 | | | 0 |
| | | | | | | | 192.168.29.10 | 65504 | 192.168.29.155 | 23013 | 1 | 78 bytes | 427 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.520351399 | 0.000045 | | | 0 |
| | | | | | | | 192.168.29.10 | 65505 | 192.168.29.155 | 58395 | 1 | 78 bytes | 428 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.520616325 | 0.000008 | | | 0 |
| | | | | | | | 192.168.29.10 | 65506 | 192.168.29.155 | 32887 | 1 | 78 bytes | 429 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.520801094 | 0.000007 | | | 0 |
| | | | | | | | 192.168.29.10 | 65507 | 192.168.29.155 | 9587 | 1 | 78 bytes | 430 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.520981530 | 0.000006 | | | 0 |
| | | | | | | | 192.168.29.10 | 65508 | 192.168.29.155 | 16089 | 1 | 78 bytes | 431 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.521137386 | 0.000005 | | | 0 |
| | | | | | | | 192.168.29.10 | 65509 | 192.168.29.155 | 9587 | 1 | 78 bytes | 432 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.622231411 | 0.000059 | | | 0 |
| | | | | | | | 192.168.29.10 | 65510 | 192.168.29.155 | 32887 | 1 | 78 bytes | 433 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.622426346 | 0.000019 | | | 0 |
| | | | | | | | 192.168.29.10 | 65511 | 192.168.29.155 | 58395 | 1 | 78 bytes | 434 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.622565453 | 0.000009 | | | 0 |
| | | | | | | | 192.168.29.10 | 65512 | 192.168.29.155 | 23013 | 1 | 78 bytes | 435 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.622707019 | 0.000013 | | | 0 |
| | | | | | | | 192.168.29.10 | 65513 | 192.168.29.155 | 16089 | 1 | 78 bytes | 436 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.622958280 | 0.000013 | | | 0 |
| | | | | | | | 192.168.29.10 | 65514 | 192.168.29.155 | 52984 | 1 | 78 bytes | 437 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.726052517 | 0.000068 | | | 0 |
| | | | | | | | 192.168.29.10 | 65515 | 192.168.29.155 | 3109 | 1 | 78 bytes | 438 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.726275073 | 0.000012 | | | 0 |
| | | | | | | | 192.168.29.10 | 65516 | 192.168.29.155 | 53860 | 1 | 78 bytes | 439 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.726467591 | 0.000022 | | | 0 |
| | | | | | | | 192.168.29.10 | 65517 | 192.168.29.155 | 42153 | 1 | 78 bytes | 440 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.726656317 | 0.000011 | | | 0 |
| | | | | | | | 192.168.29.10 | 65518 | 192.168.29.155 | 35935 | 1 | 78 bytes | 441 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.726803258 | 0.000011 | | | 0 |
| | | | | | | | 192.168.29.10 | 65519 | 192.168.29.155 | 35935 | 1 | 78 bytes | 442 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.831799468 | 0.000038 | | | 0 |
| | | | | | | | 192.168.29.10 | 65520 | 192.168.29.155 | 42153 | 1 | 78 bytes | 443 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.832015067 | 0.000011 | | | 0 |
| | | | | | | | 192.168.29.10 | 65521 | 192.168.29.155 | 53860 | 1 | 78 bytes | 444 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.832150800 | 0.000007 | | | 0 |
| | | | | | | | 192.168.29.10 | 65522 | 192.168.29.155 | 3109 | 1 | 78 bytes | 445 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.83224462 | 0.000009 | | | 0 |
| | | | | | | | 192.168.29.10 | 65523 | 192.168.29.155 | 52984 | 1 | 78 bytes | 446 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.832309989 | 0.000004 | | | 0 |
| | | | | | | | 192.168.29.10 | 65524 | 192.168.29.155 | 7901 | 1 | 78 bytes | 447 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.937645324 | 0.000044 | | | 0 |
| | | | | | | | 192.168.29.10 | 65525 | 192.168.29.155 | 53962 | 1 | 78 bytes | 448 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.937915083 | 0.000025 | | | 0 |
| | | | | | | | 192.168.29.10 | 65526 | 192.168.29.155 | 34737 | 1 | 78 bytes | 449 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.938167843 | 0.000014 | | | 0 |
| | | | | | | | 192.168.29.10 | 65527 | 192.168.29.155 | 50199 | 1 | 78 bytes | 450 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.938168051 | 0.000060 | | | 0 |
| | | | | | | | 192.168.29.10 | 65528 | 192.168.29.155 | 16650 | 1 | 78 bytes | 451 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 105.938506051 | 0.000018 | | | 0 |
| | | | | | | | 192.168.29.10 | 65529 | 192.168.29.155 | 16650 | 1 | 78 bytes | 452 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 106.043769438 | 0.000045 | | | 0 |
| | | | | | | | 192.168.29.10 | 65530 | 192.168.29.155 | 50199 | 1 | 78 bytes | 453 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 106.044008450 | 0.000023 | | | 0 |
| | | | | | | | 192.168.29.10 | 65531 | 192.168.29.155 | 34737 | 1 | 78 bytes | 454 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 106.044195093 | 0.000013 | | | 0 |
| | | | | | | | 192.168.29.10 | 65532 | 192.168.29.155 | 53962 | 1 | 78 bytes | 455 | 2 | 50.00% | 1 | 78 bytes | 0 | 0 bytes | 106.044397610 | 0.000018 | | | 0 |
| | | | | | | | 192.168.29.10 | 65533 | 192.168.29.155 | 7901 | 1 | 78 bytes | 456</ | | | | | | | | | | | |

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

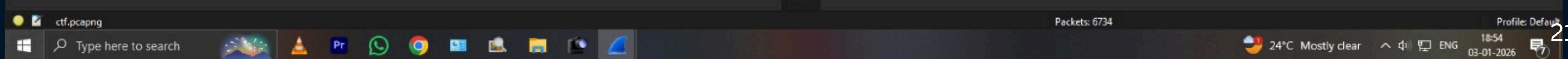
Apply a display filter ... <Ctrl-/>

Wireshark · Conversations · ctf.pcapng

Conversation Settings

| Ethernet · 8 | IPv4 · 6 | IPv6 · 9 | TCP · 2910 | UDP · 15 | | | | | | | | | | | | |
|--|----------|--------------------------|------------|----------|-----------|-----------|---------------|------------------|---------------|-------------|---------------|-------------|---------------|-----------|--------------|--------|
| Address A | Port A | Address B | Port B | Packets | Bytes | Stream ID | Total Packets | Percent Filtered | Packets A → B | Bytes A → B | Packets B → A | Bytes B → A | Rel Start | Duration | Bits/s A → B | Bits/s |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54128 | 2a04:4e42:5a::347 | 443 | 177 | 226 kB | 873 | 177 | 100.00% | 77 | 9 kB | 100 | 217 kB | 114.332004216 | 0.349007 | 208 kbps | 496 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54110 | 2a04:4e42:5a::347 | 443 | 43 | 11 kB | 871 | 43 | 100.00% | 22 | 4 kB | 21 | 7 kB | 114.331965846 | 16.623280 | 2115 bits/s | 3369 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54120 | 2a04:4e42:5a::347 | 443 | 42 | 11 kB | 872 | 42 | 100.00% | 22 | 4 kB | 20 | 7 kB | 114.331985302 | 16.623122 | 2115 bits/s | 3327 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54098 | 2a04:4e42:5a::347 | 443 | 41 | 11 kB | 869 | 41 | 100.00% | 21 | 4 kB | 20 | 7 kB | 114.331781035 | 16.019829 | 1913 bits/s | 3447 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54102 | 2a04:4e42:5a::347 | 443 | 41 | 11 kB | 870 | 41 | 100.00% | 21 | 4 kB | 20 | 7 kB | 114.331938891 | 17.555542 | 1963 bits/s | 3151 |
| 192.168.29.155 | 49778 | 34.36.137.203 | 443 | 23 | 9 kB | 823 | 23 | 100.00% | 12 | 3 kB | 11 | 6 kB | 113.640210705 | 0.384824 | 60 kbps | 12 |
| 192.168.29.155 | 52822 | 192.168.29.10 | 8000 | 21 | 178 kB | 1833 | 21 | 100.00% | 10 | 1 kB | 11 | 177 kB | 133.981493419 | 0.010563 | 802 kbps | 133 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 58708 | 2600:1901:0:92a9:: | 443 | 19 | 6 kB | 830 | 19 | 100.00% | 10 | 1 kB | 9 | 4 kB | 113.687135123 | 0.165068 | 63 kbps | 20 |
| 192.168.29.155 | 47258 | 34.107.243.93 | 443 | 18 | 7 kB | 854 | 18 | 100.00% | 9 | 3 kB | 9 | 4 kB | 114.111253622 | 0.117531 | 183 kbps | 29 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54408 | 2404:6800:4002:809::2003 | 80 | 17 | 3 kB | 831 | 17 | 100.00% | 9 | 1 kB | 8 | 2 kB | 113.730314336 | 51.216799 | 189 bits/s | 281 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 54412 | 2404:6800:4002:809::2003 | 80 | 17 | 3 kB | 837 | 17 | 100.00% | 9 | 1 kB | 8 | 2 kB | 113.793908906 | 51.153206 | 190 bits/s | 281 |
| 192.168.29.155 | 39570 | 34.107.221.82 | 80 | 17 | 2 kB | 867 | 17 | 100.00% | 9 | 912 bytes | 8 | 752 bytes | 114.330796365 | 51.108764 | 142 bits/s | 117 |
| 2405:201:3027:886b:c62a:28af:522a:9b40 | 41868 | 2600:1901:0:38d7:: | 80 | 17 | 2 kB | 868 | 17 | 100.00% | 9 | 1 kB | 8 | 912 bytes | 114.331648677 | 51.115722 | 170 bits/s | 142 |
| 192.168.29.155 | 47264 | 34.107.243.93 | 443 | 15 | 4 kB | 860 | 15 | 100.00% | 8 | 3 kB | 7 | 2 kB | 114.199730455 | 0.660972 | 31 kbps | 2 |
| 192.168.29.155 | 55826 | 192.168.29.10 | 8000 | 12 | 2 kB | 1525 | 12 | 100.00% | 6 | 739 bytes | 6 | 1 kB | 127.730091370 | 0.005385 | 1097 kbps | 156 |
| 192.168.29.155 | 55818 | 192.168.29.10 | 8000 | 11 | 2 kB | 1524 | 11 | 100.00% | 5 | 676 bytes | 6 | 970 bytes | 127.680713023 | 0.007581 | 713 kbps | 102 |
| 192.168.29.155 | 55834 | 192.168.29.10 | 8000 | 11 | 2 kB | 1617 | 11 | 100.00% | 5 | 676 bytes | 6 | 970 bytes | 129.539725759 | 0.006021 | 898 kbps | 128 |
| 192.168.29.155 | 55850 | 192.168.29.10 | 8000 | 11 | 2 kB | 1700 | 11 | 100.00% | 5 | 676 bytes | 6 | 970 bytes | 131.178141380 | 0.007017 | 770 kbps | 110 |
| 192.168.29.10 | 65117 | 192.168.29.155 | 23 | 4 | 278 bytes | 40 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 97.573623355 | 0.000755 | | |
| 192.168.29.10 | 65183 | 192.168.29.155 | 23 | 4 | 278 bytes | 106 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 98.924781964 | 0.000734 | | |
| 192.168.29.10 | 65244 | 192.168.29.155 | 23 | 4 | 278 bytes | 167 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 100.189703629 | 0.000824 | | |
| 192.168.29.10 | 65305 | 192.168.29.155 | 23 | 4 | 278 bytes | 228 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 101.449732441 | 0.000418 | | |
| 192.168.29.10 | 65366 | 192.168.29.155 | 23 | 4 | 278 bytes | 289 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 102.704556769 | 0.000414 | | |
| 192.168.29.10 | 65427 | 192.168.29.155 | 23 | 4 | 278 bytes | 350 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 103.963745226 | 0.000926 | | |
| 192.168.29.10 | 65493 | 192.168.29.155 | 23 | 4 | 278 bytes | 416 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 105.311982986 | 0.000394 | | |
| 192.168.29.10 | 49170 | 192.168.29.155 | 23 | 4 | 278 bytes | 477 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 106.570366542 | 0.001058 | | |
| 192.168.29.10 | 49231 | 192.168.29.155 | 23 | 4 | 278 bytes | 538 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 107.824106921 | 0.000711 | | |
| 192.168.29.10 | 49292 | 192.168.29.155 | 23 | 4 | 278 bytes | 599 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 109.075963407 | 0.000995 | | |
| 192.168.29.10 | 49358 | 192.168.29.155 | 23 | 4 | 278 bytes | 665 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 110.429311328 | 0.001189 | | |
| 192.168.29.10 | 49424 | 192.168.29.155 | 23 | 4 | 278 bytes | 731 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 111.779001826 | 0.001350 | | |
| 192.168.29.10 | 49485 | 192.168.29.155 | 23 | 4 | 278 bytes | 792 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 113.035221315 | 0.000755 | | |
| 192.168.29.10 | 49546 | 192.168.29.155 | 23 | 4 | 278 bytes | 861 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 114.286708222 | 0.001056 | | |
| 192.168.29.10 | 49612 | 192.168.29.155 | 23 | 4 | 278 bytes | 934 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 115.635955096 | 0.000710 | | |
| 192.168.29.10 | 49678 | 192.168.29.155 | 23 | 4 | 278 bytes | 1000 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 116.980629223 | 0.000455 | | |
| 192.168.29.10 | 49741 | 192.168.29.155 | 23 | 4 | 278 bytes | 1061 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 118.235354055 | 0.000755 | | |
| 192.168.29.10 | 49802 | 192.168.29.155 | 23 | 4 | 278 bytes | 1122 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 119.488359105 | 0.000726 | | |
| 192.168.29.10 | 49863 | 192.168.29.155 | 23 | 4 | 278 bytes | 1183 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 120.741527428 | 0.000388 | | |
| 192.168.29.10 | 49924 | 192.168.29.155 | 23 | 4 | 278 bytes | 1244 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 122.000415697 | 0.000265 | | |
| 192.168.29.10 | 49990 | 192.168.29.155 | 23 | 4 | 278 bytes | 1310 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 123.357711371 | 0.000889 | | |
| 192.168.29.10 | 50051 | 192.168.29.155 | 23 | 4 | 278 bytes | 1371 | 4 | 100.00% | 3 | 204 bytes | 1 | 74 bytes | 124.609290476 | 0.000767 | | |

Close **Help**





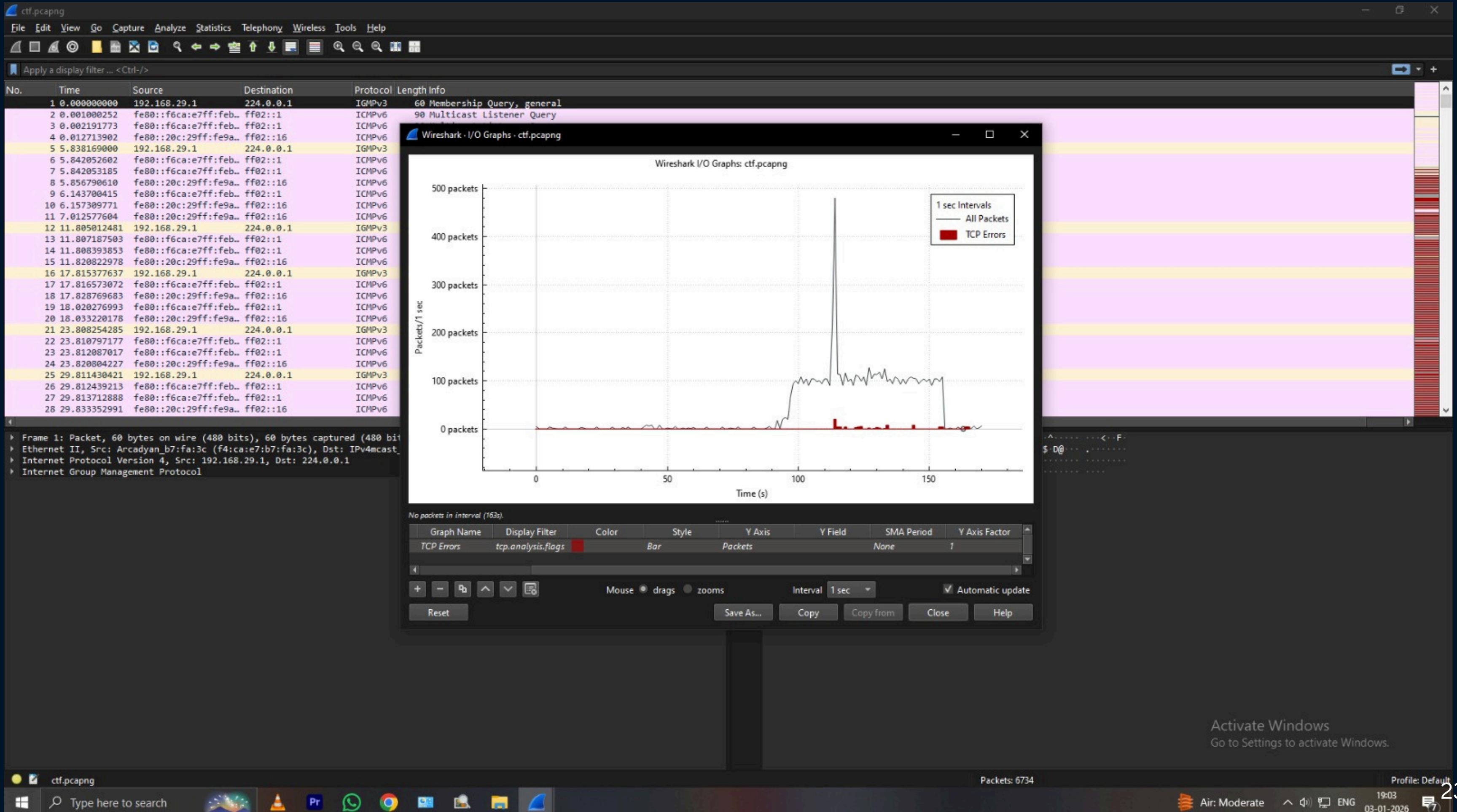
STEP 4: Find First Attack Packet Timestamp

1. Use display filter:

```
tcp.flags.syn == 1 && tcp.flags.ack == 0
```

2. First SYN packet = start of attack

3. Note Time column





STEP 5: Detect Reconnaissance (Port Scanning)

Evidence of scanning:

- ◆ Multiple SYN packets
- ◆ Different destination ports
 - ◆ Same source IP

Filter to show scan:

```
tcp.flags.syn == 1
```

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

tcp.flags.ack == 0

| No. | Time | Source | Destination | Protocol | Length Info |
|-----|--------------|---------------|----------------|----------|---|
| 114 | 92.526134436 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65077 → 1025 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1155360771 TSecr=0 SACK_PERM |
| 118 | 92.526134686 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65078 → 21 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2672813409 TSecr=0 SACK_PERM |
| 122 | 92.526134853 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65079 → 256 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1496160996 TSecr=0 SACK_PERM |
| 126 | 92.526562967 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65080 → 995 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1842567352 TSecr=0 SACK_PERM |
| 127 | 92.526563134 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65081 → 113 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2899215982 TSecr=0 SACK_PERM |
| 130 | 94.031490643 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65082 → 113 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1205874625 TSecr=0 SACK_PERM |
| 132 | 94.031694867 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65083 → 995 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=3919365462 TSecr=0 SACK_PERM |
| 134 | 94.031866930 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65084 → 256 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2339771569 TSecr=0 SACK_PERM |
| 136 | 94.032056698 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65085 → 21 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1040019528 TSecr=0 SACK_PERM |
| 138 | 94.032144062 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65086 → 1025 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2293715502 TSecr=0 SACK_PERM |
| 140 | 94.537475874 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65087 → 111 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1431568732 TSecr=0 SACK_PERM |
| 142 | 94.537531742 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65088 → 587 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=115132832 TSecr=0 SACK_PERM |
| 143 | 94.537531783 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65089 → 110 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2094195447 TSecr=0 SACK_PERM |
| 146 | 94.537595192 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65090 → 5900 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=3640963666 TSecr=0 SACK_PERM |
| 148 | 94.537671808 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65091 → 25 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1289189946 TSecr=0 SACK_PERM |
| 150 | 95.043938046 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65092 → 25 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1153936565 TSecr=0 SACK_PERM |
| 151 | 95.043940254 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65093 → 5900 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=3416203877 TSecr=0 SACK_PERM |
| 152 | 95.043940337 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65094 → 110 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=2843155803 TSecr=0 SACK_PERM |
| 153 | 95.043940379 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65095 → 587 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=3640963666 TSecr=0 SACK_PERM |
| 154 | 95.043940421 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65096 → 111 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1539986766 TSecr=0 SACK_PERM |
| 160 | 95.549355847 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65097 → 8080 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=1823623093 TSecr=0 SACK_PERM |
| 162 | 95.549559697 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65098 → 53 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=43589124 TSecr=0 SACK_PERM |
| 164 | 95.549763088 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65099 → 139 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=3880614591 TSecr=0 SACK_PERM |
| 166 | 95.549927526 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65100 → 445 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=282411481 TSecr=0 SACK_PERM |
| 168 | 95.550088590 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65101 → 554 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=630306503 TSecr=0 SACK_PERM |
| 174 | 96.053692448 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65102 → 554 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=4092596466 TSecr=0 SACK_PERM |
| 176 | 96.053968289 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65103 → 445 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=4239802973 TSecr=0 SACK_PERM |
| 177 | 96.053968456 | 192.168.29.10 | 192.168.29.155 | TCP | 78 65104 → 139 [SYN, ECE, CWR] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=694931653 TSecr=0 SACK_PERM |

Frame 114: Packet, 78 bytes on wire (624 bits), 78 bytes captured (624 bits) on interface eth0, id 0

Ethernet II, Src: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f), Dst: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3)

- Destination: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3)
 - 0. = LG bit: Globally unique address (factory default)
 - 0. = IG bit: Individual address (unicast)
- Source: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f)
 - 1. = LG bit: Locally administered address (this is NOT the factory default)
 - 0. = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

[Stream index: 5]

Internet Protocol Version 4, Src: 192.168.29.10, Dst: 192.168.29.155

0100 = Version: 4

.... 0101 = Header Length: 20 bytes (5)

Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)

Total Length: 64

Identification: 0x0000 (0)

010. = Flags: 0x2, Don't fragment

...0 0000 0000 0000 = Fragment Offset: 0

Time to Live: 255

Protocol: TCP (6)

Header Checksum: 0xbfc1 [validation disabled]

[Header checksum status: Unverified]

Source Address: 192.168.29.10

Destination Address: 192.168.29.155

[Stream index: 2]

Transmission Control Protocol, Src Port: 65077, Dst Port: 1025, Seq: 0, Len: 0

Source Port: 65077

Destination Port: 1025

[Stream index: 0]

MSS Value (tcp.options.mss_val), 2 bytes

Packets: 6734 - Displayed: 2958 (43.9%)

Activate Windows
Go to Settings to activate Windows.

Profile: Default 25

18:13 03-01-2026

STEP 6: Analyze HTTP Traffic

1. Apply filter:

 Copy code

http

2. Look for:

- GET requests
- File download (.zip)

3. Select suspicious packet

4. Right-click → **Follow** → **HTTP Stream**

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Open Ctrl+O

Open Recent

Merge...

Import from Hex Dump...

Close Ctrl+W

Save Ctrl+S

Save As... Ctrl+Shift+S

File Set

Export Specified Packets...

Export Packet Dissections

Export Packet Bytes... Ctrl+Shift+X

Export PDUs to File...

Strip Headers...

Export TLS Session Keys...

Export Objects

- DICOM...
- HTTP... **HTTP**
- FTP-DATA...
- IMF...
- SMB...
- TFTP...
- X509AF...

Print... Ctrl+P

Quit Ctrl+Q

Frame 4455: Packet, 457 bytes on wire (3656 bits), 457 bytes captured (3656 bits) on interface eth0, id 0

Ethernet II, Src: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3), Dst: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f)

Destination: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f)

.... ..1. = LG bit: Locally administered address (this is NOT the factory default)

.... ...0 = IG bit: Individual address (unicast)

Source: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3)

.... ..0. = LG bit: Globally unique address (factory default)

.... ...0 = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

[Stream index: 5]

Internet Protocol Version 4, Src: 192.168.29.155, Dst: 192.168.29.10

0100 = Version: 4

.... 0101 = Header Length: 20 bytes (5)

Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)

Total Length: 443

Identification: 0x15af (5551)

010. = Flags: 0x2, Don't fragment

...0 0000 0000 0000 = Fragment Offset: 0

Time to Live: 64

Protocol: TCP (6)

Header Checksum: 0x6798 [validation disabled]

[Header checksum status: Unverified]

Source Address: 192.168.29.155

Destination Address: 192.168.29.10

[Stream index: 2]

Transmission Control Protocol, Src Port: 52822, Dst Port: 8000, Seq: 1, Ack: 1, Len: 391

Source Port: 52822

Destination Port: 8000

[Stream index: 1833]

[Stream Packet Number: 5]

Transmission Control Protocol (tcp), 32 bytes

| Destination | Protocol | Length Info |
|---------------------------|----------|---|
| 2404:6800:4002:809:: OCSP | OCSP | 520 Request |
| 2404:6800:4002:809:: OCSP | OCSP | 520 Request |
| 2405:201:3027:886b:: OCSP | OCSP | 1189 Response |
| 2405:201:3027:886b:: OCSP | OCSP | 1189 Response |
| 34.107.221.82 | HTTP | 376 GET /success.txt?ipv4 HTTP/1.1 |
| 2600:1901:0:38d7:: | HTTP | 396 GET /success.txt?ipv6 HTTP/1.1 |
| 192.168.29.155 | HTTP | 282 HTTP/1.1 200 OK (text/plain) |
| 2405:201:3027:886b:: | HTTP | 302 HTTP/1.1 200 OK (text/plain) |
| 192.168.29.10 | HTTP | 404 GET / HTTP/1.1 |
| 192.168.29.155 | HTTP | 473 HTTP/1.0 200 OK (text/html) |
| 192.168.29.10 | HTTP | 425 GET /favicon.ico HTTP/1.1 |
| 192.168.29.155 | HTTP | 526 HTTP/1.0 404 File not found (text/html) |
| 192.168.29.10 | HTTP | 404 GET / HTTP/1.1 |
| 192.168.29.155 | HTTP | 473 HTTP/1.0 200 OK (text/html) |
| 192.168.29.10 | HTTP | 404 GET / HTTP/1.1 |
| 192.168.29.10 | HTTP | 473 HTTP/1.0 200 OK (text/html) |
| 192.168.29.10 | HTTP | 457 GET /dog_flag.jpg.zip HTTP/1.1 |
| 192.168.29.10 | HTTP | 686 HTTP/1.0 200 OK (application/zip) |

0000 ae 19 31 91 5d 4f 00 0c 29 9a 0f b3 08 00 45 00 1]0)...E
0010 01 bb 15 af 40 00 40 06 67 98 c0 a8 1d 9b c0 a8 ..@ @ g.....
0020 1d 0a ce 56 1f 40 94 f5 c6 fd d8 61 2d 8a 80 18 ..V @.. .a....
0030 00 fb bd a3 00 00 01 01 08 0a cd 74 40 29 c4 e5 t@)...
0040 b0 38 47 45 54 20 2f 64 6f 67 5f 66 6c 61 67 2e .8GET /d og_flag.
0050 6a 70 67 2e 7a 69 70 20 48 54 54 50 2f 31 2e 31 jpg.zip HTTP/1.1
0060 0d 0a 48 6f 73 74 3a 20 31 39 32 2e 31 36 38 2e Host: 192.168.
0070 32 39 2e 31 30 3a 38 30 30 30 0d 0a 55 73 65 72 29.10:80 00 User
0080 2d 41 67 65 6e 74 3a 20 4d 6f 7a 69 6c 6c 61 2f Agent: Mozilla/
0090 35 2e 30 20 28 58 31 31 3b 20 4c 69 6e 75 78 20 5.0 (X11 ; Linux
00a0 78 38 36 5f 36 34 3b 20 72 76 3a 31 34 30 2e 30 x86_64; rv:140.0
00b0 29 20 47 65 63 6b 6f 2f 32 30 31 30 31 30 31) Gecko/20100101
00c0 20 46 69 72 65 66 6f 78 2f 31 34 30 2e 30 0d 0a Firefox/140.0...
00d0 41 63 63 65 70 74 3a 20 74 65 78 74 2f 68 74 6d Accept: text/htm
00e0 6c 2c 61 70 70 6c 69 63 61 74 69 6f 6e 2f 78 68 l,application/xh
00f0 74 6d 6c 2b 78 6d 6c 2c 61 70 70 6c 69 63 61 74 tml+xml, applicat
0100 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 2e 39 2c 2f ion/xml; q=0.9,*/
0110 2a 3b 71 3d 30 2e 38 0d 0a 41 63 63 65 70 74 2d *;q=0.8 Accept-
0120 4c 61 6e 67 75 61 67 65 3a 20 65 6e 2d 55 53 2c Language : en-US,
0130 65 6e 3b 71 3d 30 2e 35 0d 0a 41 63 63 65 70 74 en;q=0.5 Accept
0140 2d 45 6e 63 6f 64 69 6e 67 3a 20 67 7a 69 70 2c -Encoding: gzip,
0150 20 64 65 66 6c 61 74 65 0d 0a 43 6f 6e 66 65 63 deflate -Connec
0160 74 69 6f 6e 3a 20 6b 65 65 70 2d 61 6c 69 76 65 tion: keep-alive
0170 0d 0a 52 65 66 65 72 65 72 3a 20 68 74 74 70 3a ..Refere r: http:
0180 2f 2f 31 39 32 2e 31 36 38 2e 32 39 2e 31 30 3a //192.16 8.29.10:
0190 38 30 30 30 2f 0d 0a 55 70 67 72 61 64 65 2d 49 8000/-U pgrade-I
01a0 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74 73 nsecure- Requests
01b0 3a 20 31 0d 0a 50 72 69 6f 72 69 74 79 3a 20 75 : 1-Pri ority: u
01c0 3d 30 2c 20 69 0d 0a 0d 0a =0, i...

Packets: 6734 · Displayed: 18 (0.3%)

Activate Windows
Go to Settings to activate Windows.

File quality forecast ENG 03-01-2026 18:27 8

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

http

| No. | http | Source | Destination | Protocol | Length | Info |
|------|---------------|----------------------|--|----------|--------|---|
| 1 | http2 | 192.168.0.2212 | 2405:201:3027:886b::2404:6800:4002:809:: | OCSP | 520 | Request |
| 2 | http3 | 192.168.0.840532694 | 2405:201:3027:886b::2404:6800:4002:809:: | OCSP | 520 | Request |
| 1921 | 113.903945495 | 2404:6800:4002:809:: | 2405:201:3027:886b:: | OCSP | 1189 | Response |
| 1931 | 113.954381438 | 2404:6800:4002:809:: | 2405:201:3027:886b:: | OCSP | 1189 | Response |
| 2075 | 114.373618915 | 192.168.29.155 | 34.107.221.82 | HTTP | 376 | GET /success.txt?ipv4 HTTP/1.1 |
| 2117 | 114.436243770 | 2405:201:3027:886b:: | 2600:1901:0:38d7:: | HTTP | 396 | GET /success.txt?ipv6 HTTP/1.1 |
| 2151 | 114.472313111 | 34.107.221.82 | 192.168.29.155 | HTTP | 282 | HTTP/1.1 200 OK (text/plain) |
| 2232 | 114.501293285 | 2600:1901:0:38d7:: | 2405:201:3027:886b:: | HTTP | 302 | HTTP/1.1 200 OK (text/plain) |
| 3755 | 127.684014245 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | GET / HTTP/1.1 |
| 3759 | 127.687734791 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.0 200 OK (text/html) |
| 3766 | 127.730725709 | 192.168.29.155 | 192.168.29.10 | HTTP | 425 | GET /favicon.ico HTTP/1.1 |
| 3772 | 127.735469005 | 192.168.29.10 | 192.168.29.155 | HTTP | 526 | HTTP/1.0 404 File not found (text/html) |
| 3970 | 129.540784629 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | GET / HTTP/1.1 |
| 3975 | 129.545321200 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.0 200 OK (text/html) |
| 4163 | 131.178735099 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | GET / HTTP/1.1 |
| 4167 | 131.183840892 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.0 200 OK (text/html) |
| 4455 | 133.982507045 | 192.168.29.155 | 192.168.29.10 | HTTP | 457 | GET /dog_flag.jpg.zip HTTP/1.1 |
| 4479 | 133.991696421 | 192.168.29.10 | 192.168.29.155 | HTTP | 686 | HTTP/1.0 200 OK (application/zip) |

```
Frame 4167: Packet, 473 bytes on wire (3784 bits), 473 bytes captured (3784 bits) on interface eth0, id 0
Ethernet II, Src: VMware_9a:0f:b3 (ae:19:31:91:5d:4f), Dst: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3)
  Destination: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3)
    .... ..0. .... .... .... = LG bit: Globally unique address (factory default)
    .... ..0. .... .... .... = IG bit: Individual address (unicast)
  Source: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f)
    .... ..1. .... .... .... = LG bit: Locally administered address (this is NOT the factory default)
    .... ..0. .... .... .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
  [Stream index: 5]
Internet Protocol Version 4, Src: 192.168.29.10, Dst: 192.168.29.155
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
  Total Length: 459
  Identification: 0x0000 (0)
  > 010. .... = Flags: 0x2, Don't fragment
  .... 0000 0000 0000 = Fragment Offset: 0
  Time to Live: 64
  Protocol: TCP (6)
  Header Checksum: 0xd37 [validation disabled]
  [Header checksum status: Unverified]
  Source Address: 192.168.29.10
  Destination Address: 192.168.29.155
  [Stream index: 2]
Transmission Control Protocol, Src Port: 8000, Dst Port: 55850, Seq: 156, Ack: 339, Len: 407
  Source Port: 8000
  Destination Port: 55850
  [Stream index: 1700]
  [Stream Packet Number: 91]
```

```
0000 00 0c 29 9a 0f b3 ae 19 31 91 5d 4f 08 00 45 00 )... 1]0 E
0010 01 cb 00 00 40 00 40 06 7d 37 c0 a8 1d 0a c0 a8 @@ ]7 ...
0020 1d 9b 1f 40 da 2a 32 bc c3 76 b9 d2 4e e0 80 19 @*2 v N ...
0030 08 06 be c1 00 00 01 01 08 0a 14 cc 8a c9 cd 74 ..... t
0040 35 35 3c 21 44 4f 43 54 59 50 45 20 48 54 4d 4c 55<!DOCTYPE HTML
0050 3e 0a 3c 68 74 6d 6c 20 6c 61 6e 67 3d 22 65 6e ><html lang="en
0060 22 3e 0a 3c 68 65 61 64 3e 0a 3c 6d 65 74 61 20 "><head><meta
0070 63 68 61 72 73 65 74 3d 22 75 74 66 2d 38 22 3e charset= "utf-8">
0080 0a 3c 73 74 79 6c 65 20 74 79 70 65 3d 22 74 65 <style type="te
0090 78 74 2f 63 73 73 22 3e 0a 3a 72 6f 74 20 7b xt/css"> :root {
00a0 0a 63 6f 6c 6f 72 2d 73 63 68 65 6d 65 3a 20 6c color-scheme: l
00b0 69 67 68 74 20 64 61 72 6b 3b 0a 7d 0a 3c 2f 73 ight dar k; }</s
00c0 74 79 6c 65 3e 0a 3c 74 69 74 6c 65 3e 44 69 72 tyle><t itle>Dir
00d0 65 63 74 6f 72 79 20 6c 69 73 74 69 6e 67 20 66 ectory l isting f
00e0 6f 72 20 2f 3c 2f 74 69 74 6c 65 3e 0a 3c 2f 68 or /<ti tle></h
00f0 65 61 64 3e 0a 3c 62 6f 64 79 3e 0a 3c 68 31 3e ead><bo dy><h1>
0100 44 69 72 65 63 74 6f 72 79 20 6c 69 73 74 69 6e Director y listin
0110 67 20 66 6f 72 20 2f 3c 2f 68 31 3e 0a 3c 68 72 g for /< /h1><hr
0120 3e 0a 3c 75 6c 3e 0a 3c 6c 69 3e 3c 61 20 68 72 ><ul>< li><a hr
0130 65 66 3d 22 64 6f 67 5f 66 6c 61 67 2e 6a 70 67 ef="dog_flag.jpg
0140 2e 7a 69 70 22 3e 64 6f 67 5f 66 6c 61 67 2e 6a .zip">do g_flag.j
0150 70 67 2e 7a 69 70 3c 2f 61 3e 3c 2f 6c 69 3e 0a pg.zip</ a></li>
0160 3c 6c 69 3e 3c 61 20 68 72 65 66 3d 22 68 65 6c <li><a h ref="hel
0170 6c 6f 2e 74 78 74 22 3e 68 65 6c 6f 2e 74 78 lo.txt"> hello.tx
0180 74 3c 2f 61 3e 3c 2f 6c 69 3e 0a 3c 6c 69 3e 3c t</a></l i><li><
0190 61 20 68 72 65 66 3d 22 68 69 64 64 65 6e 5f 73 a href=" hidden_s
01a0 65 72 76 65 72 22 3e 68 69 64 64 65 6e 5f 73 65 erver">h idden_se
01b0 72 76 65 72 3c 2f 61 3e 3c 2f 6c 69 3e 0a 3c 2f rver</a> </li></

```

Activate Windows
Go to Settings to activate Windows.

ctf.pcapng

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

http

| No. | Time | Source | Destination | Protocol | Length | Info |
|--------|----------------|----------------------|----------------------|----------|--------|--------------------------------|
| 1890 | 113.784002212 | 2405:201:3027:886b:: | 2404:6800:4002:809:: | OCSP | 520 | Request |
| 1905 | 113.840532694 | 2405:201:3027:886b:: | 2404:6800:4002:809:: | OCSP | 520 | Request |
| 1921 | 113.903945495 | 2404:6800:4002:809:: | 2405:201:3027:886b:: | OCSP | 1189 | Response |
| 1931 | 113.954381438 | 2404:6800:4002:809:: | 2405:201:3027:886b:: | OCSP | 1189 | Response |
| 2075 | 114.373618915 | 192.168.29.155 | 34.107.221.82 | HTTP | 376 | GET /success.txt?ipv4 HTTP/1.1 |
| 2117 | 114.436243770 | 2405:201:3027:886b:: | 2600:1901:0:38d7:: | HTTP | 396 | GET /success.txt?ipv6 HTTP/1.1 |
| 2151 | 114.472313111 | 34.107.221.82 | 192.168.29.155 | HTTP | 282 | HTTP/1.1 200 OK (text/plain) |
| 2232 | 114.501293285 | 2600:1901:0:38d7:: | 2405:201:3027:886b:: | HTTP | 302 | HTTP/1.1 302 Found |
| 3755 | 127.684014245 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | HTTP/1.1 404 Not Found |
| 3759 | 127.687734791 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.1 404 Not Found |
| 3766 | 127.730725709 | 192.168.29.155 | 192.168.29.10 | HTTP | 425 | HTTP/1.1 425 Gone |
| 3772 | 127.735469005 | 192.168.29.10 | 192.168.29.155 | HTTP | 526 | HTTP/1.1 526 Too Many Requests |
| 3970 | 129.540784629 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | HTTP/1.1 404 Not Found |
| 3975 | 129.545321200 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.1 404 Not Found |
| 4163 | 131.178735099 | 192.168.29.155 | 192.168.29.10 | HTTP | 404 | HTTP/1.1 404 Not Found |
| 4167 | 131.183840892 | 192.168.29.10 | 192.168.29.155 | HTTP | 473 | HTTP/1.1 404 Not Found |
| + 4455 | 133.9982507045 | 192.168.29.155 | 192.168.29.10 | HTTP | 457 | HTTP/1.1 404 Not Found |
| + 4479 | 133.991696421 | 192.168.29.10 | 192.168.29.155 | HTTP | 686 | HTTP/1.1 404 Not Found |

Wireshark · Export · HTTP object list

| Packet | Hostname | Content Type | Size | Filename |
|--------|--------------------------|---------------------------|-----------|------------------|
| 1890 | o.pki.goog | application/ocsp-request | 84 bytes | y4Y |
| 1905 | o.pki.goog | application/ocsp-request | 84 bytes | y4Y |
| 1921 | o.pki.goog | application/ocsp-response | 472 bytes | y4Y |
| 1931 | o.pki.goog | application/ocsp-response | 472 bytes | y4Y |
| 2151 | detectportal.firefox.com | text/plain | 8 bytes | success.txt?ipv4 |
| 2232 | detectportal.firefox.com | text/plain | 8 bytes | success.txt?ipv6 |
| 3759 | 192.168.29.10:8000 | text/html | 407 bytes | \ |
| 3772 | 192.168.29.10:8000 | text/html | 460 bytes | favicon.ico |
| 3975 | 192.168.29.10:8000 | text/html | 407 bytes | \ |
| 4167 | 192.168.29.10:8000 | text/html | 407 bytes | \ |
| 4479 | 192.168.29.10:8000 | application/zip | 175 kB | dog_flag.jpg.zip |

Frame 4455: Packet, 457 bytes on wire (3656 bits), 457 bytes captured (3656 bits)

Ethernet II, Src: VMware_9a:0f:b3 (00:0c:29:9a:0f:b3), Dst: ae:19:31:91:5d:4f (ae:19:31:91:5d:4f)

Internet Protocol Version 4, Src: 192.168.29.155, Dst: 192.168.29.10

Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)

Internet Protocol Version 4, Src: 192.168.29.155, Dst: 192.168.29.10

Transmission Control Protocol, Src Port: 52822, Dst Port: 8000, Seq: 1, Ack: 1, Len: 391

Transmission Control Protocol (tcp), 32 bytes

Save Save All Preview Close Help

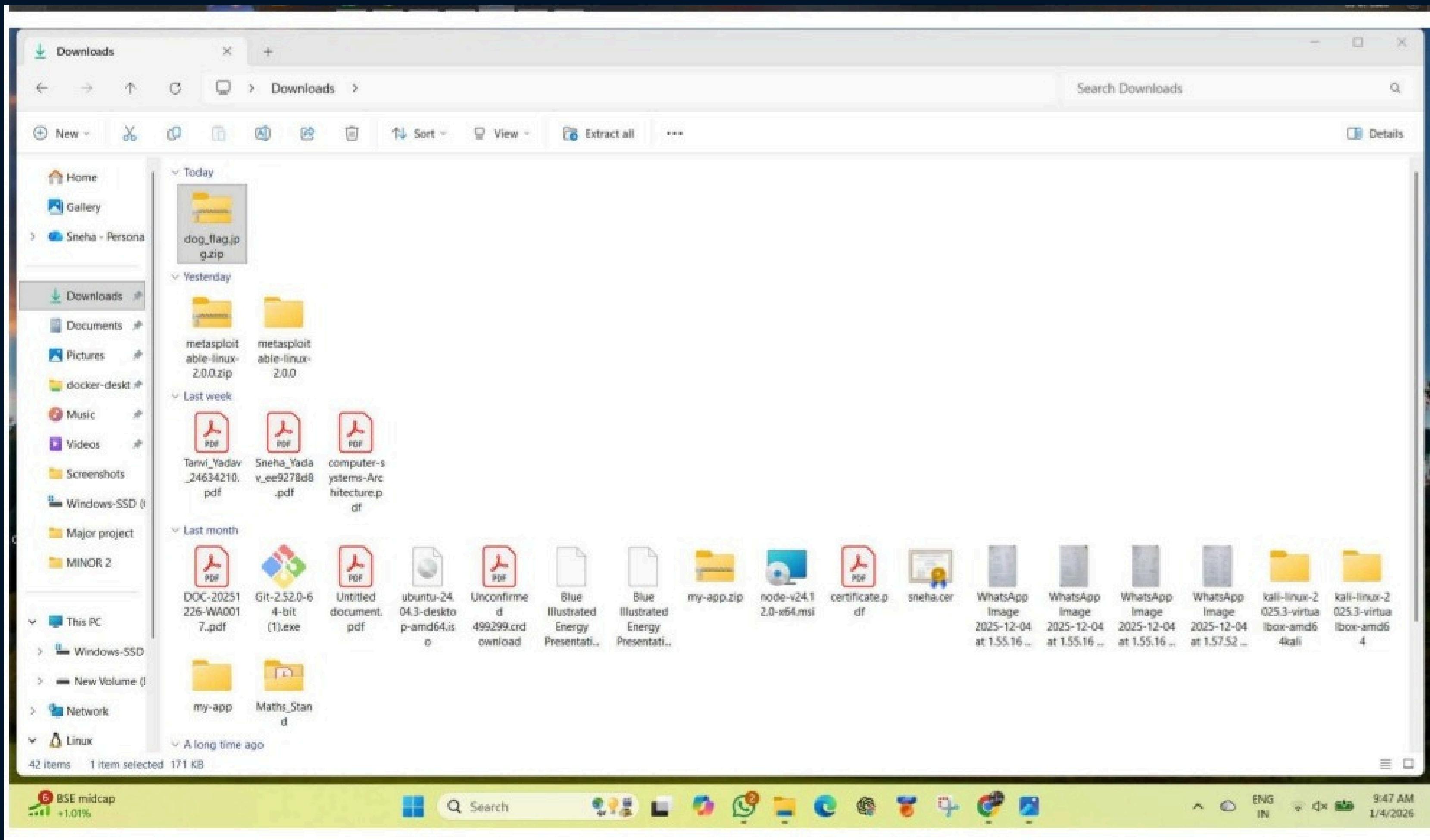
00 1·]0·).....E·
a8 ..@ @ g.....
18 ..·V@· ··a···
e5 ·t@)···
2e ·8GET /d og_flag.
31 jpg.zip HTTP/1.1
2e ·Host: 192.168.
72 29.10:80 00 ·User
2f -Agent: Mozilla/
20 5.0 (X11 ; Linux
30 x86_64; rv:140.0
31) Gecko/ 20100101
0a Firefox /140.0 ·
6d Accept: text/htm
l,application/xhtml+xml
00F0 74 6d 6c 2b 78 6d 6c 2c 61 70 70 6c 69 63 61 74
0100 69 6f 6e 2f 78 6d 6c 3b 71 3d 30 2e 39 2c 2a 2f
0110 2a 3b 71 3d 30 2e 38 0d 0a 41 63 63 65 70 74 2d
0120 4c 61 6e 67 75 61 67 65 3a 20 65 6e 2d 55 53 2c
0130 65 6e 3b 71 3d 30 2e 35 0d 0a 41 63 63 65 70 74
0140 2d 45 6e 63 6f 64 69 6e 67 3a 20 67 7a 69 70 2c
0150 20 64 65 66 6c 61 74 65 0d 0a 43 6f 6e 66 63
0160 74 69 6f 6e 3a 20 6b 65 65 70 2d 61 6c 69 76 65
0170 0d 0a 52 65 66 65 72 65 72 3a 20 68 74 74 70 3a
0180 2f 2f 31 39 32 2e 31 36 38 2e 32 39 2e 31 30 3a
0190 38 30 30 30 2f 0d 0a 55 70 67 72 61 64 65 2d 49
01a0 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74 73
01b0 3a 20 31 0d 0a 50 72 69 6f 72 69 74 79 3a 20 75
01c0 3d 30 2c 20 69 0d 0a 0d 0a : 1 · Priority: u
=0, i···

Packets: 6734 · Displayed: 18 (0.3%)

Profile: Default

Air quality forecast 18:27 ENG 03-01-2026 8

Activate Windows Go to Settings to activate Windows.





STEP 7: Extract ZIP File from PCAP

1. Go to:

Copy code

File → Export Objects → HTTP

2. Find .zip file

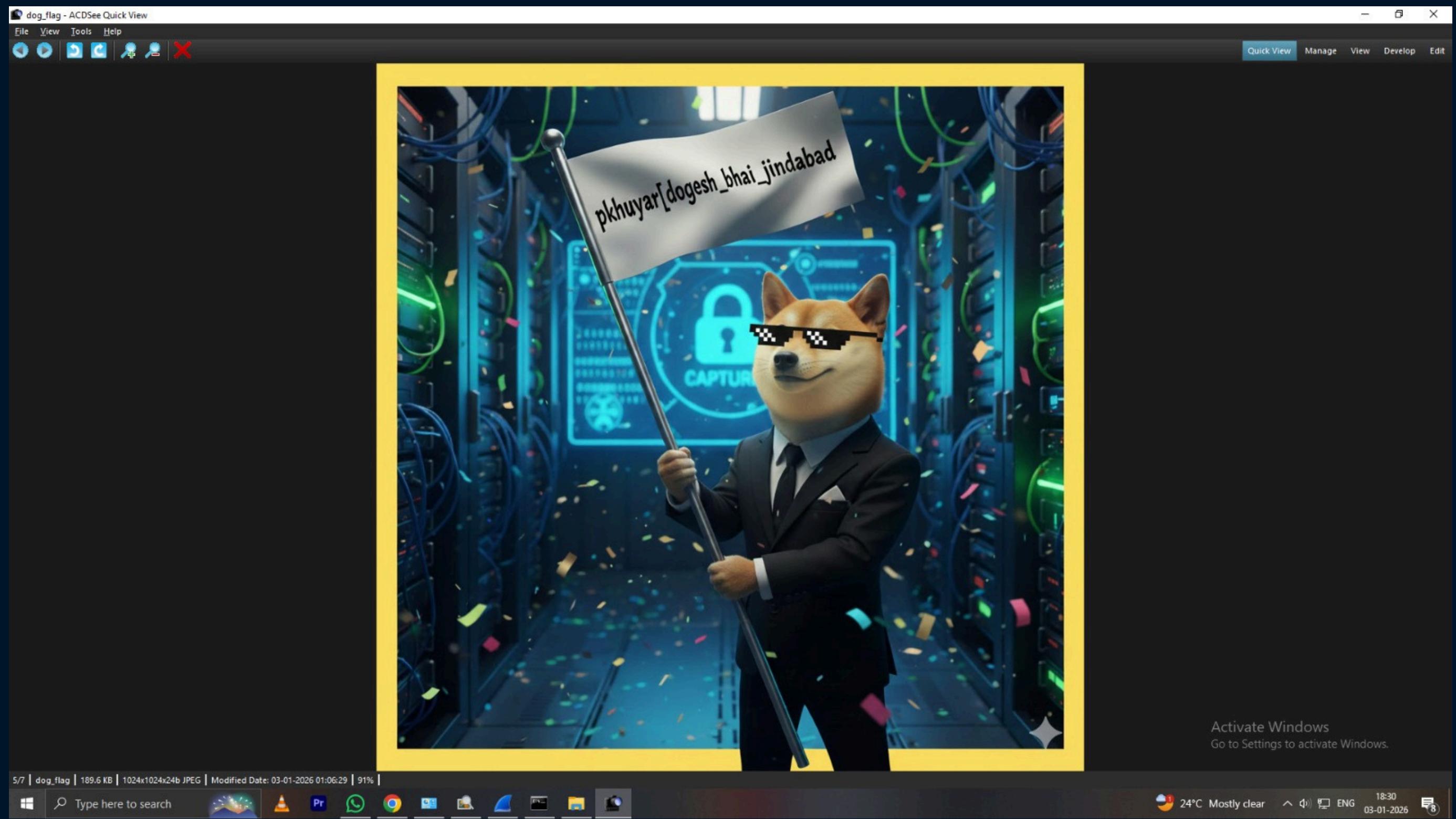
3. Click **Save**

4. Save it to a folder



STEP 8: Unzip the File

1. Right-click ZIP → **Extract Here**
2. Open extracted file
3. Locate **flag.txt** or similar file
4. Open it



!? QUESTIONS AND ANSWERS

- ◆ What is attackers ip address?

192.168.29.10

- ◆ What is the name of the downloaded ZIP file?

dog_flag.jpg

- ◆ What is the flag obtained after unzipping the file?

pkhuyar[dogesh_bhai_jindabad]

- ◆ What evidence suggests reconnaissance activity?

The attacker sends multiple SYN packets to different port numbers on the victim machine

Result And Conclusion

Result:

The PCAP analysis helped identify the attacker and victim, detect port scanning, and analyze HTTP-based ZIP file transfer. The ZIP file was extracted successfully and the flag was obtained.

Conclusion:

This project shows how PCAP analysis is used in SOC investigations to detect attacks and data theft. It highlights the importance of network monitoring and timely incident response.

THANK YOU