NETWORK TRAFFIC ANALYSIS

Forensic Investigation Report

Case ID:	CASE-20260113-153117
Analyst:	abc
Evidence File:	evidence01.pcap
Report Generated:	2026-01-13T15:31:18

■ CONFIDENTIAL - FOR AUTHORIZED PERSONNEL ONLY ■

Executive Summary

Network traffic analysis was conducted on the provided PCAP file. The analysis identified 11 unique source IP addresses and 13 unique destination IP addresses. ■ SUSPICIOUS ACTIVITY DETECTED: - 6 high-volume traffic source(s) Detailed findings are documented in the full report.

Evidence Integrity Verification

✓ Evidence Hash Verified

Hash Algorithm	Hash Value
SHA-256	`8b997bb2d221d538174f89796b6434e853d2ed19bd5da5f15bec9bd7bc485650`
MD5	`d187d77e18c84f6d72f5845edca833f5`

File Size: 70,957 bytes
Verified: 2026-01-13T15:31:17.829930

Complete IP Address Inventory

Source IP Addresses

#	Source IP Address	Packet Count
1	192.168.1.159	59
2	192.168.1.158	38
3	205.188.13.12	31
4	192.168.1.157	28
5	64.12.25.91	24
6	64.12.24.50	20
7	192.168.1.2	7
8	64.236.68.246	5
9	192.168.1.10	4
10	192.168.1.30	3

Destination IP Addresses

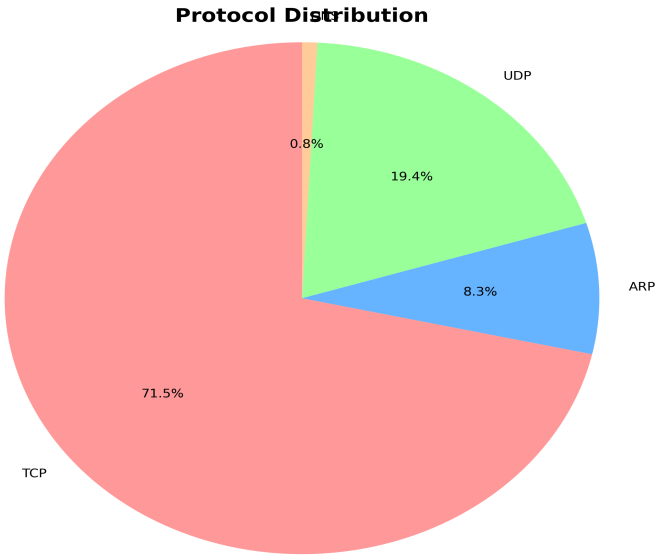
#	Destination IP Address	Packet Count
1	192.168.1.159	76
2	192.168.1.255	39
3	192.168.1.158	30
4	64.12.24.50	20
5	64.12.25.91	16
6	205.188.13.12	16
7	192.168.1.2	5
8	64.236.68.246	5
9	192.168.1.30	4
10	192.168.1.157	4

Total Unique Source IPs: 11
Total Unique Destination IPs: 13

Protocol Distribution Analysis

Protocol	Packet Count	Percentage
TCP	173	71.49%
ARP	20	8.26%
UDP	47	19.42%
DNS	2	0.83%

Protocol Distribution Chart



Suspicious Activity Analysis

■ High Volume Traffic Sources

IP Address	Packets	Percentage	Severity
192.168.1.157	28	11.67%	MEDIUM
192.168.1.158	38	15.83%	MEDIUM
64.12.24.50	20	8.33%	MEDIUM
64.12.25.91	24	10.0%	MEDIUM
192.168.1.159	59	24.58%	HIGH
205.188.13.12	31	12.92%	MEDIUM

CHAIN OF CUSTODY (CoC) FORM

Case Information

Case Title:	CASE-20260113-153117
Analyst:	abc
Case Description:	N/A
Date Started:	2026-01-13

Evidence Details

Evidence Type:	PCAP Network Capture File
File Name:	evidence01.pcap
File Size:	70,957 bytes
Evidence Source:	Digital Network Traffic Capture
Original Hash (SHA256):	`8b997bb2d221d538174f89796b6434e853d2ed19bd5da5f15bec9bd7bc485650`
Original Hash (MD5):	`d187d77e18c84f6d72f5845edca833f5`
Acquisition Date/Time:	2026-01-13T15:31:17

Storage & Integrity Information

Storage Location:	Local Evidence Repository
Backup Location:	Secure Backup System
Access Restriction:	Authorized Personnel Only
Final Hash Verification:	
Hash BEFORE Analysis:	`8b997bb2d221d538174f89796b6434e853d2ed19bd5da5f15bec9bd7bc485650`
Hash AFTER Analysis:	`8b997bb2d221d538174f89796b6434e853d2ed19bd5da5f15bec9bd7bc485650`
Integrity Status:	**MATCHED ✓**

Declaration:
I/We declare that the evidence was handled ethically and professionally. All procedures followed proper chain of custody protocols. Hash verification confirms evidence integrity has been maintained throughout the analysis.

Handling Log

No.	Date/Time	Handler Name	Action Taken	Purpose	Hash (Yes/No)	Verified
1	2026-01-13T15:31:17	abc	Evidence Acquired	PCAP file loaded for analysis. SHA256: 8b997bb2d22	Yes	✓
2	2026-01-13T15:31:17	abc	Hash Calculated	SHA256 and MD5 hashes generated for integrity veri	Yes	✓
3	2026-01-13T15:31:17	abc	Analysis Started	Loaded 240 packets for analysis	Yes	✓

Certification

Name	Signature	Date
abc		2026-01-13