

**Komunikasi Data dan Jaringan Komputer**

**Analisis IP address dengan aplikasi Colasoft Capsa 9**



**ILHAM DANU WASPODO**

**09031281520110**

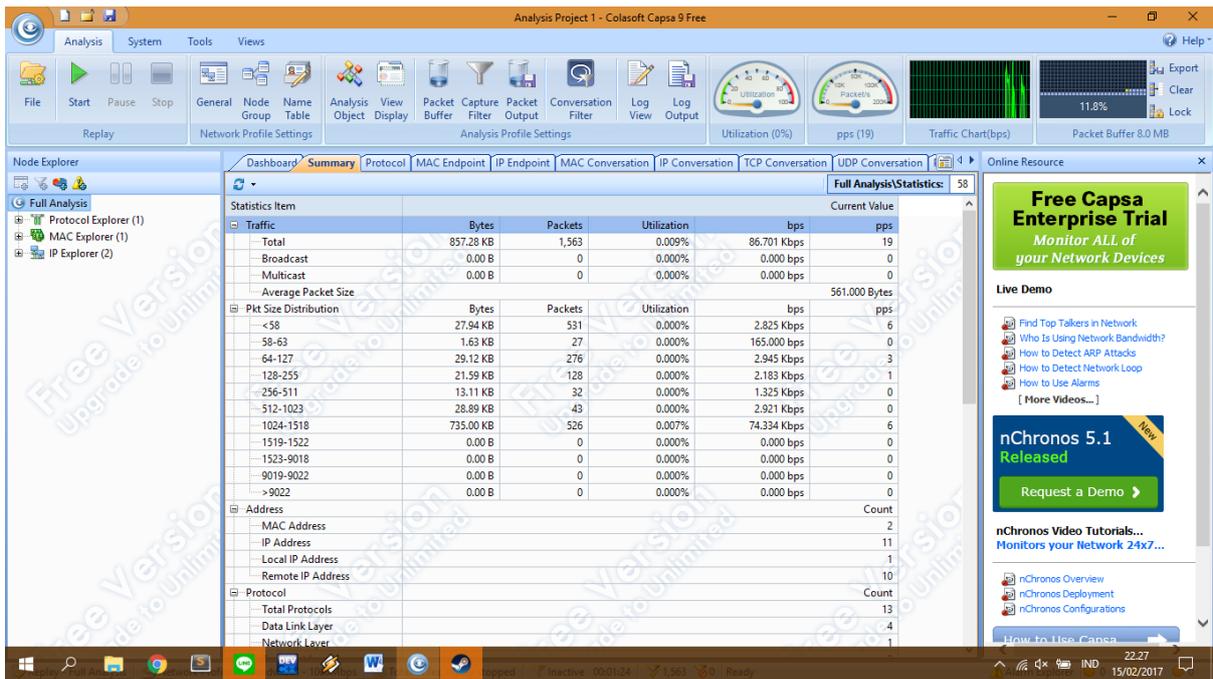
**DOSEN PEMBIMBING**

**Deris Stiawan, M.T., Ph.D.**

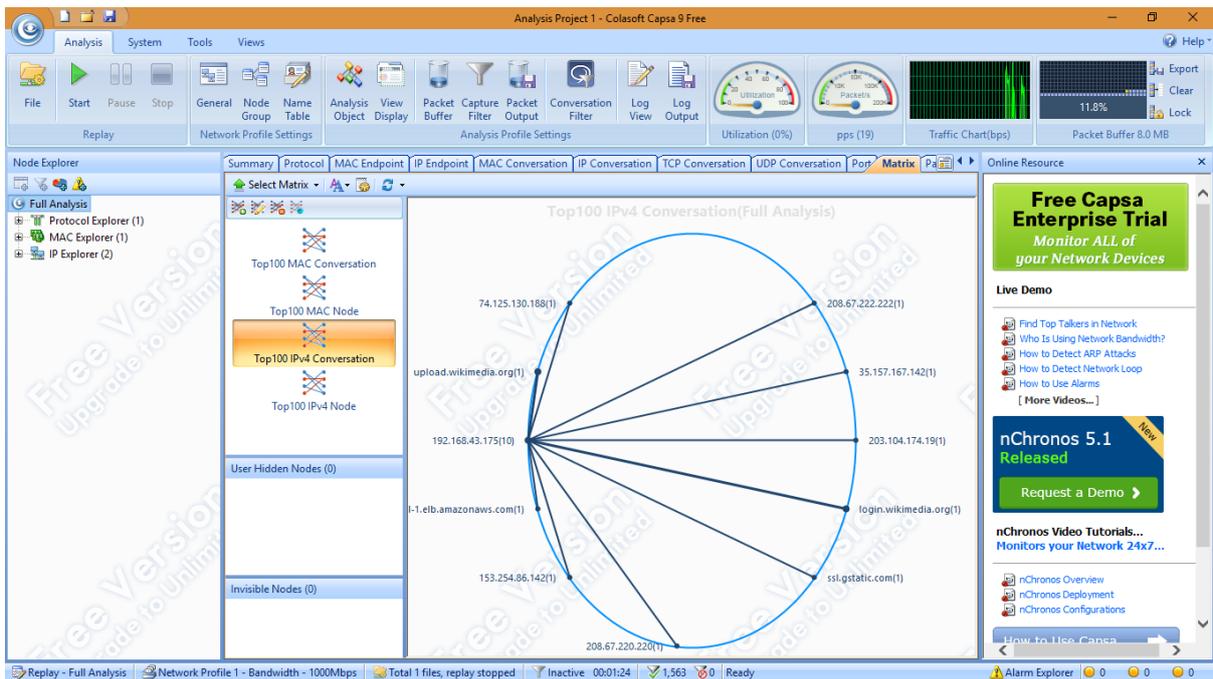
**SISTEM INFORMASI**

**FAKULTAS ILMU KOMPUTER**

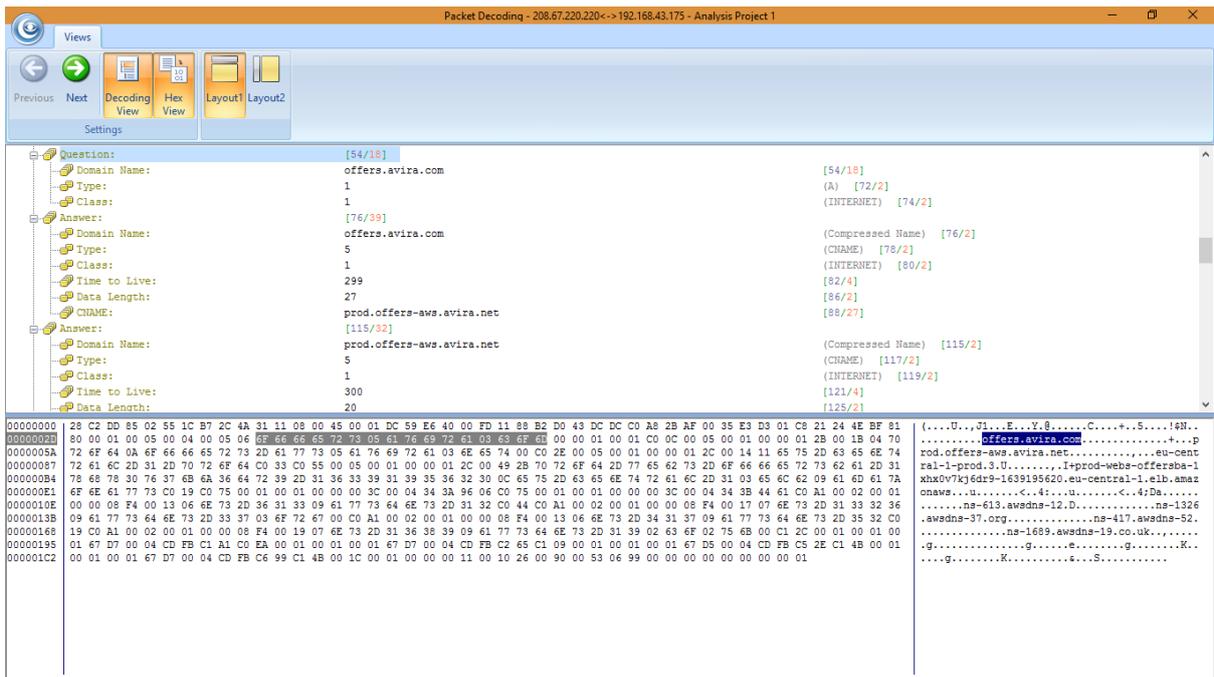
**UNIVERSITAS SRIWIJAYA**



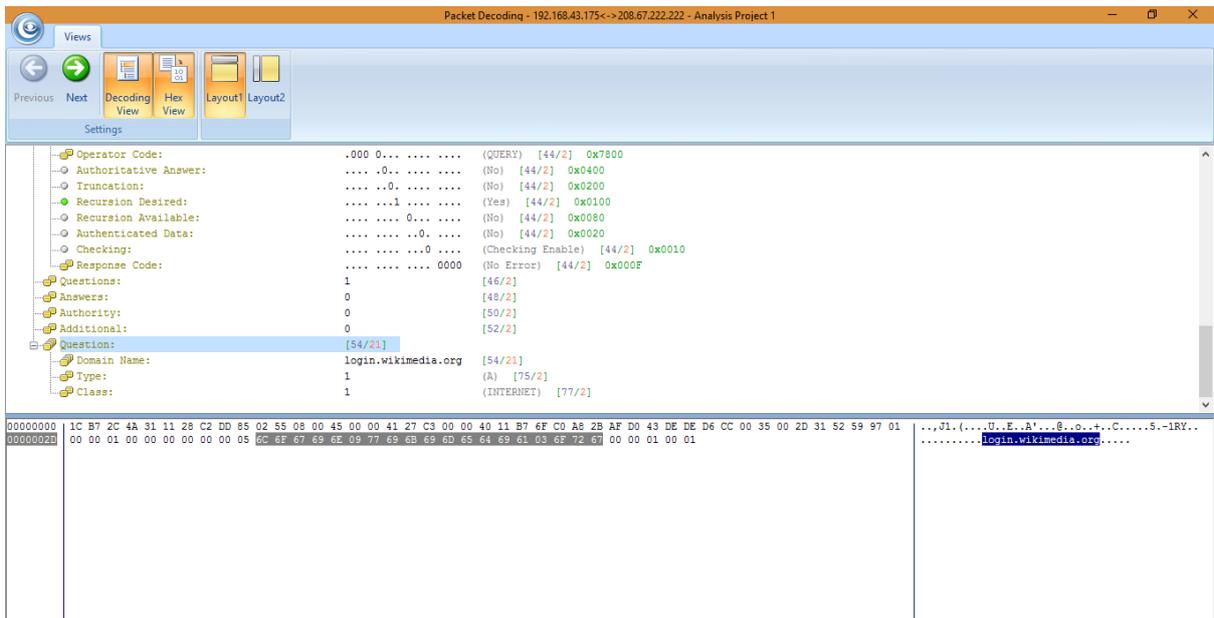
Hasil yang didapatkan setelah melakukan Analisis dengan menggunakan aplikasi Colasoft Capsa 9 free ke sebuah website www.wikipedia.org adalah bahwa website tersebut memiliki total paket sebesar 1563 dan rata – rata dari paket tersebut sebesar 561 bytes.



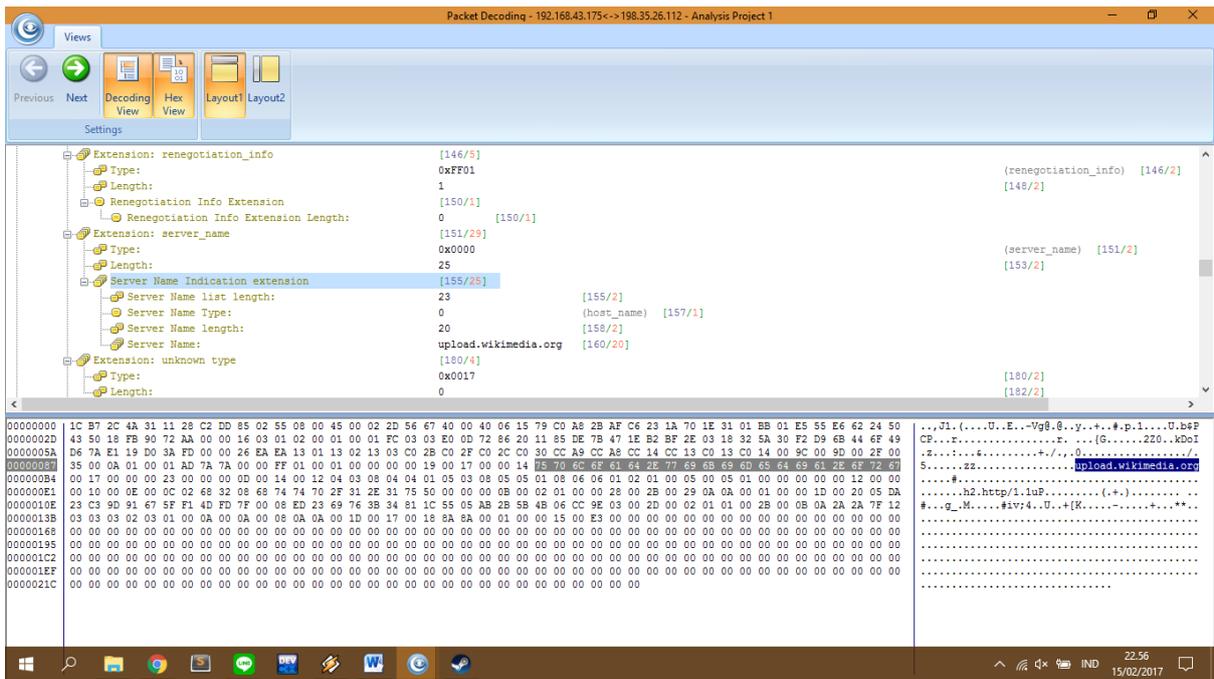
IP Local (**192.168.43.175**) merupakan IP yang berasal dari jaringan tethering yang digunakan dengan provider telkomsel. IP ini mendapatkan Host sebanyak 10 host dengan data yang tentunya berbeda.



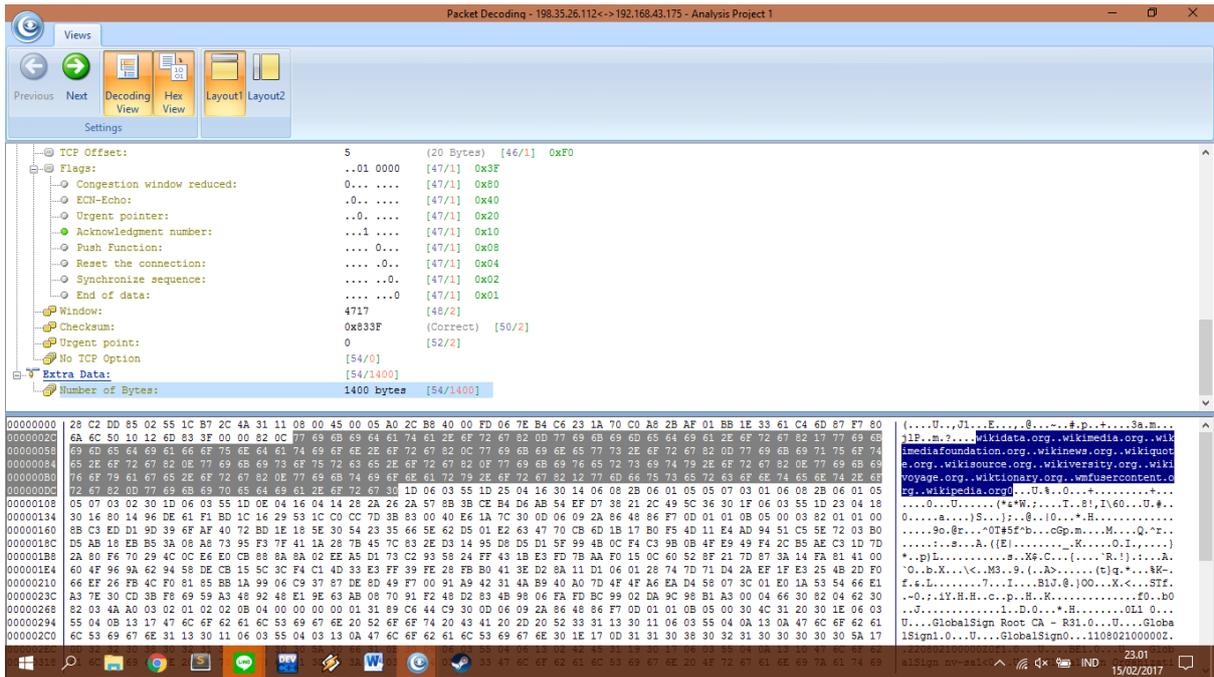
Pada screenshot diatas, dapat diketahui bahwa ip tujuan (208.67.220.220) berisi tentang domain offers.avira.com dengan panjang data 27.



Untuk IP tujuan Selanjutnya (208.67.222.222) dapat diketahui bahwa IP tersebut merupakan IP address dari domain login.wikimedia.org



Lalu dari IP Tujuan (**198.35.26.112**) merupakan IP yang memiliki domain **upload.wikimedia.org** serta memiliki alamat link **h2.http/1.1Up**.



Dengan IP yang sama juga, IP tersebut juga memiliki data **wikidata.org**, **wikimedia.org**, **wikimediafoundation.org**, **wikinews.org**, **wikiquote.org**, **wikiversity.org**, **wikivoyage.org**, **wiktionary.org**, **wmfusercontent.org** dan **wikipedia.org**.



Top100 IPv4 Conversation(Full Analysis) - 74.125.130.188 - Packets

| No.  | Absolute Time   | Source              | Destination         | Protocol | Size | Decode | Summary                                    |
|------|-----------------|---------------------|---------------------|----------|------|--------|--|
| 2    | 22:20:43.800529 | 192.168.43.175:7190 | 74.125.130.188:5228 | TCP      | 55   |        | [ACK] Seq=3319635571,Ack=1726178928,L...   |
| 3    | 22:20:43.929977 | 74.125.130.188:5228 | 192.168.43.175:7190 | TCP      | 54   |        | [ACK] Seq=1726178928,Ack=3319635572,L...   |
| 1051 | 22:21:28.929867 | 192.168.43.175:7190 | 74.125.130.188:5228 | TCP      | 55   |        | [TCP Keep-Alive] [ACK] Seq=3319635571,A... |
| 1052 | 22:21:29.489119 | 74.125.130.188:5228 | 192.168.43.175:7190 | TCP      | 54   |        | [Dup ACK] [ACK] Seq=1726178928,Ack=33...   |

Packet Info:

- Number: 2
- Packet Length: 55
- Capture Length: 55
- Timestamp: 2017/02/15 22:20:43.800529
- Ethernet Type II: [0/14]
- Destination Address: 1C:B7:2C:4A:31:11 (ASUSTek COMPUTER IN)
- Source Address: 28:C2:DD:85:02:55 (AzureWave Technolog)
- Protocol: 0x0800 (Internet IP (IPv4))
- IP - Internet Protocol: [14/20]
  - Version: 4 [14/1] 0xF0
  - Header Length: 5 (20 Bytes) [14/1] 0x01
  - Differentiated Services Field: 0000 0000 [15/1] 0xFF
  - Differentiated Services Codepoint: 0000 00.. [15/1] 0xFC
  - Transport Protocol will ignore the CE bit: .... 0.0. (Ignore) [15/1] 0x02
  - Congestion: .... 0.0. (No Congestion) [15/1]
  - Total Length: 41 (41 Bytes) [16/2]

```

00000000 1C B7 2C 4A 31 11 28 C2 DD 85 02 55 08 00 45 00 00 29 52 75 ...J1.(...U..E..)Ru
00000014 40 00 40 06 2E C9 C0 A8 2B AF 4A 7D 82 BC 1C 16 14 6C C5 DD @.0....+J).....1.
00000028 9E 73 66 E3 66 70 50 10 F7 2C 9C EE 00 00 00 ....sf.fP.....
  
```

Lalu dari IP Tujuan (**74.125.130.188**) merupakan IP yang paketnya tidak diketahui.

Top100 IPv4 Conversation(Full Analysis) - 203.104.174.19 - Packets

| No.  | Absolute Time   | Source              | Destination         | Protocol | Size | Decode | Summary                                  |
|------|-----------------|---------------------|---------------------|----------|------|--------|--|
| 802  | 22:21:03.077802 | 192.168.43.175:7369 | 203.104.174.19:443  | HTTPS    | 66   |        | Error                                    |
| 807  | 22:21:03.136727 | 203.104.174.19:443  | 192.168.43.175:7369 | TCP      | 54   |        | [ACK] Seq=1709639807,Ack=1316043653,L... |
| 808  | 22:21:03.152202 | 203.104.174.19:443  | 192.168.43.175:7369 | HTTPS    | 66   |        | Error                                    |
| 809  | 22:21:03.186262 | 192.168.43.175:7369 | 203.104.174.19:443  | TCP      | 54   |        | [ACK] Seq=1316043653,Ack=1709639819,L... |
| 1560 | 22:22:03.085038 | 192.168.43.175:7369 | 203.104.174.19:443  | HTTPS    | 66   |        | Error                                    |
| 1561 | 22:22:03.305177 | 203.104.174.19:443  | 192.168.43.175:7369 | TCP      | 54   |        | [ACK] Seq=1709639819,Ack=1316043665,L... |
| 1562 | 22:22:03.316787 | 203.104.174.19:443  | 192.168.43.175:7369 | HTTPS    | 66   |        | Error                                    |
| 1563 | 22:22:03.369424 | 192.168.43.175:7369 | 203.104.174.19:443  | TCP      | 54   |        | [ACK] Seq=1316043665,Ack=1709639831,L... |

Packet Info:

- Number: 1,562
- Packet Length: 66
- Capture Length: 66
- Timestamp: 2017/02/15 22:22:03.316787
- Ethernet Type II: [0/14]
- Destination Address: 28:C2:DD:85:02:55 (Azur)
- Source Address: 1C:B7:2C:4A:31:11 (ASUS)
- Protocol: 0x0800 (Inte)
- IP - Internet Protocol: [14/20]
  - Version: 4 [14/1]
  - Header Length: 5 (20 Byte)
  - Differentiated Services Field: 0000 0000 [15/1]
  - Differentiated Services Codepoint: 0000 00.. [15/1]
  - Transport Protocol will ignore the CE bit: .... 0.0. (Ignore)
  - Congestion: .... 0.0. (No Cong)
  - Total Length: 52 (52 Byte)

```

00000000 28 C2 DD 85 02 55 1C B7 2C 4A 31 11 08 00 45 00 00 34 DF 45 (...U..,J1...E..4.E
00000014 40 00 FD 06 38 AA CB 68 AE 13 C0 A8 2B AF 01 BB 1C C9 65 E7 @...8..h...+.....e.
00000028 08 8B 4E 71 3B 91 50 18 7F EA 32 94 00 00 80 02 00 06 00 00 ..Nq;.P...2.....
0000003C 00 04 00 00 00 69 .....1
  
```

Lalu dari IP Tujuan (**203.104.174.19**) merupakan IP yang paketnya tidak diketahui.

| No.  | Absolute Time   | Source              | Destination         | Protocol | Size | Decode | Summary                                    |
|------|-----------------|---------------------|---------------------|----------|------|--------|--|
| 1    | 22:20:43.747721 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 81   |        | [PUSH, ACK] Seq=1709575085, Ack=168802...  |
| 4    | 22:20:43.932490 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 54   |        | [ACK] Seq=1688021048, Ack=1709575112, L... |
| 5    | 22:20:44.554424 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 77   |        | [PUSH, ACK] Seq=1688021048, Ack=170957...  |
| 6    | 22:20:44.615385 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 54   |        | [ACK] Seq=1709575112, Ack=1688021071, L... |
| 1488 | 22:21:43.762431 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 81   |        | [PUSH, ACK] Seq=1709575112, Ack=168802...  |
| 1489 | 22:21:44.066841 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 81   |        | [Retransmission] [PUSH, ACK] Seq=170957... |
| 1495 | 22:21:44.421876 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 81   |        | [Retransmission] [PUSH, ACK] Seq=170957... |
| 1511 | 22:21:45.031305 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 81   |        | [Retransmission] [PUSH, ACK] Seq=170957... |
| 1544 | 22:21:45.884774 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 54   |        | [ACK] Seq=1688021071, Ack=1709575139, L... |
| 1546 | 22:21:45.884775 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 54   |        | [Dup ACK] [ACK] Seq=1688021071, Ack=17...  |
| 1547 | 22:21:45.884775 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 77   |        | [PUSH, ACK] Seq=1688021071, Ack=170957...  |
| 1549 | 22:21:45.884777 | 35.157.167.142:80   | 192.168.43.175:7145 | TCP      | 77   |        | [Retransmission] [PUSH, ACK] Seq=168802... |
| 1551 | 22:21:45.884848 | 192.168.43.175:7145 | 35.157.167.142:80   | TCP      | 66   |        | [ACK] Seq=1709575139, Ack=1688021094, L... |

**Packet Info:**

- Number: 5
- Packet Length: 77
- Capture Length: 77
- Timestamp: 2017/02/15 22:20:44.554424
- Ethernet Type II: [0/14]
- Destination Address: 28:C2:DD:85:02:55 (AzureWave Technolog)
- Source Address: 1C:B7:2C:4A:31:11 (ASUSTek COMPUTER IN)
- Protocol: 0x0800 (Internet IP (IPv4))
- IP - Internet Protocol: [14/20]
  - Version: 4 [14/1] 0xF0
  - Header Length: 5 (20 Bytes) [14/1] 0x01
  - Differentiated Services Field: 0000 0000 [15/1] 0xFF
  - Differentiated Services Codepoint: 0000 00.. [15/1] 0xFC
  - Transport Protocol will ignore the CE bit: ... ..0. (Ignore) [15/1] 0x02
  - Congestion: ... ..0. (No Congestion) [15/1]
  - Total Length: 63 (63 Bytes) [16/2]

```

00000000 28 C2 DD 85 02 55 1C B7 2C 4A 31 11 08 00 45 00 00 3F FE A8 (...U...J1...E...?..
00000014 40 00 FD 06 C7 8C 23 9D A7 8E CO A8 2B AF 00 50 1B EF 64 9D @.R.....V...i.aR
00000028 28 39 6E E6 0B C8 50 18 1E C9 03 8F 00 00 8A 15 32 2F 31 35 .c.FiP...F...0...VI
0000003C 2F 32 30 31 37 20 31 30 3A 32 30 3A 34 33 20 50 4D 01...G...h...JAT...
/2017 10:20:43 PM
  
```

Untuk IP Tujuan (**35.157.167.142**) memiliki paket yang berisikan tanggal dan waktu kapan website tersebut dibuka

| No.  | Absolute Time   | Source               | Destination          | Protocol | Size | Decode | Summary                                    |
|------|-----------------|----------------------|----------------------|----------|------|--------|--|
| 135  | 22:20:51.568392 | 192.168.43.175:7149  | 153.254.86.142:27017 | MONGO    | 110  |        |  |
| 166  | 22:20:52.035866 | 192.168.43.175:7149  | 153.254.86.142:27017 | MONGO    | 110  |        | [Retransmission]                           |
| 183  | 22:20:52.315494 | 153.254.86.142:27017 | 192.168.43.175:7149  | TCP      | 54   |        | [ACK] Seq=1677215337, Ack=1632155394, L... |
| 271  | 22:20:53.353825 | 153.254.86.142:27017 | 192.168.43.175:7149  | TCP      | 54   |        | [Dup ACK] [ACK] Seq=1677215337, Ack=16...  |
| 1047 | 22:21:18.677483 | 192.168.43.175:7149  | 153.254.86.142:27017 | MONGO    | 110  |        |  |
| 1048 | 22:21:18.871643 | 153.254.86.142:27017 | 192.168.43.175:7149  | TCP      | 54   |        | [ACK] Seq=1677215337, Ack=1632155450, L... |
| 1529 | 22:21:45.736291 | 192.168.43.175:7149  | 153.254.86.142:27017 | MONGO    | 110  |        |  |
| 1550 | 22:21:45.884777 | 153.254.86.142:27017 | 192.168.43.175:7149  | TCP      | 54   |        | [ACK] Seq=1677215337, Ack=1632155506, L... |

**Packet Info:**

- Number: 135
- Packet Length: 110
- Capture Length: 110
- Timestamp: 2017/02/15 22:20:51.568392
- Ethernet Type II: [0/14]
- Destination Address: 1C:B7:2C:4A:31:11 (ASUSTek COMPUTER IN)
- Source Address: 28:C2:DD:85:02:55 (AzureWave Technolog)
- Protocol: 0x0800 (Internet IP (IPv4))
- IP - Internet Protocol: [14/20]
  - Version: 4 [14/1] 0xF0
  - Header Length: 5 (20 Bytes) [14/1] 0x01
  - Differentiated Services Field: 0000 0000 [15/1] 0xFF
  - Differentiated Services Codepoint: 0000 00.. [15/1] 0xFC
  - Transport Protocol will ignore the CE bit: ... ..0. (Ignore) [15/1] 0x02
  - Congestion: ... ..0. (No Congestion) [15/1]
  - Total Length: 96 (96 Bytes) [16/2]

```

00000000 1C B7 2C 4A 31 11 28 C2 DD 85 02 55 08 00 45 00 00 0B AA ...J1.(...U...E...?..
00000014 40 00 40 06 52 0A C0 A8 2B AF 99 FE 56 8E 1B ED 69 89 61 48 @.R.....V...i.aR
00000028 B6 CA 63 F8 46 69 50 18 FF FF 46 CB 00 00 30 00 00 56 54 .c.FiP...F...0...VI
0000003C 30 31 C0 EE 63 D9 9C F9 6E A4 13 18 5D 41 54 11 A7 85 DC F2 01...G...h...JAT...
00000050 1D 17 46 06 35 21 8D 2D CA 8D 54 96 D6 10 E6 8E 2C 5D 59 E5 .F.S[...T...J.V.
00000064 B6 69 83 2F C3 D6 26 31 99 1B .i./..i1...
  
```

Dan IP tujuan (**153.254.86.142**) sendiri juga tidak diketahui paket datanya