

Komunikasi Data
"Qos Terhadap Traffic Jaringan Menggunakan
Tools Wireshark"



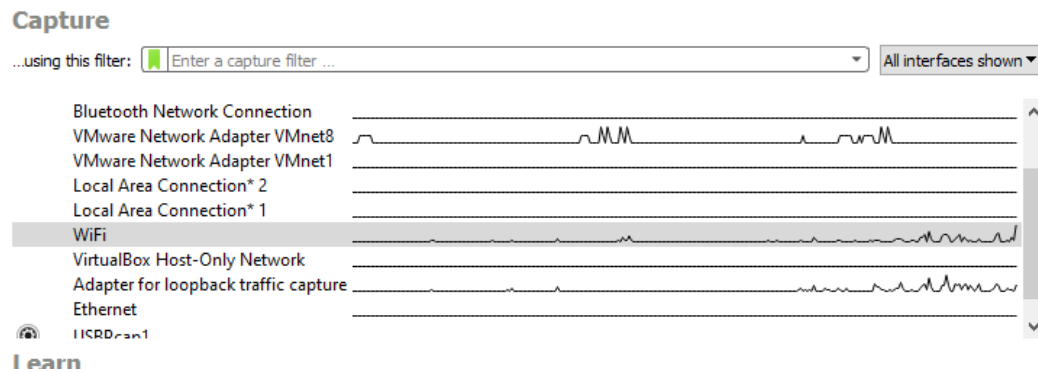
Disusun Oleh :

Nama : Putra Osama
Nim : 09011282025049
Kelas : SK4A Indralaya
Dosen Pengampu : Adi Hermansyah, M.T

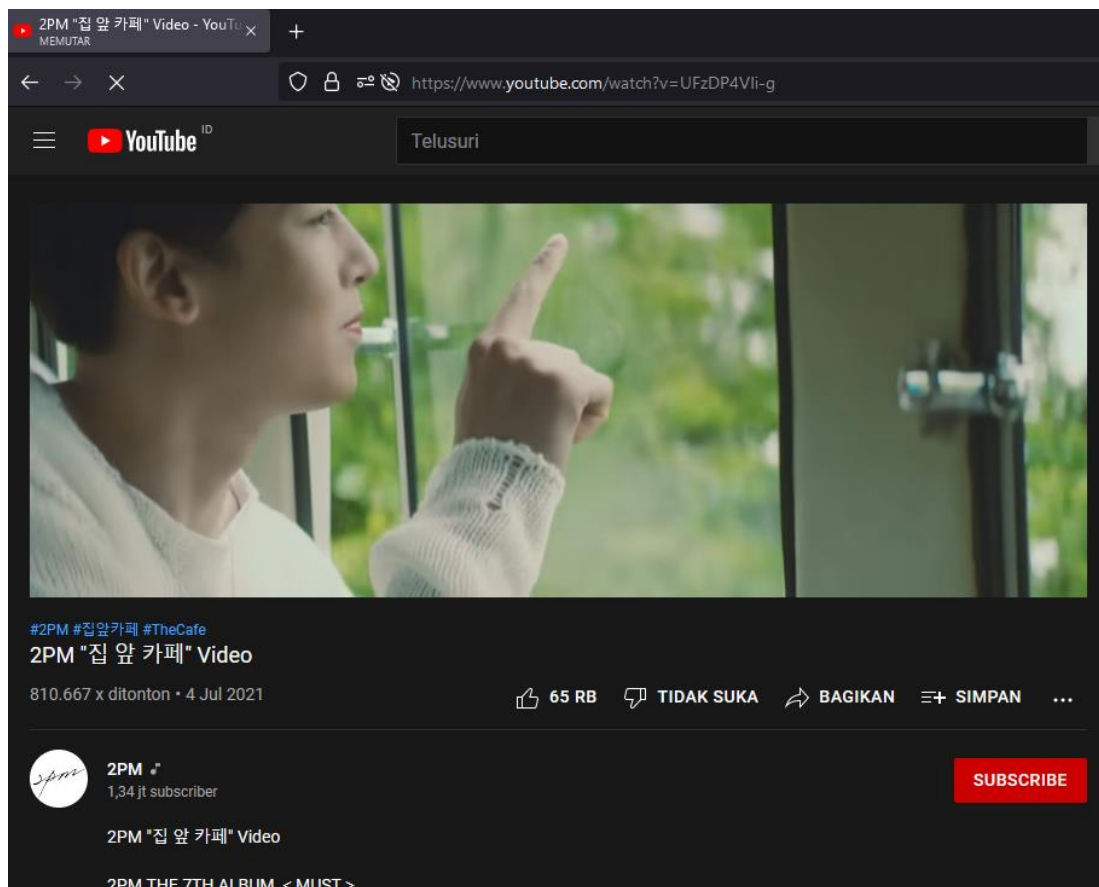
Program Studi Sistem Komputer
Fakultas Ilmu Komputer
Universitas Sriwijaya Tahun 2022

Link Github : <https://github.com/putraosama/Qos-Terhadap-Traffic-Jaringan-Menggunakan-Tools-Wireshark>

1. Buka wireshark disini interfaces yang akan dicapture adalah WiFi



2. Start, lalu sambil membuka video di youtube untuk mendapatkan paket-paket traffic jaringan



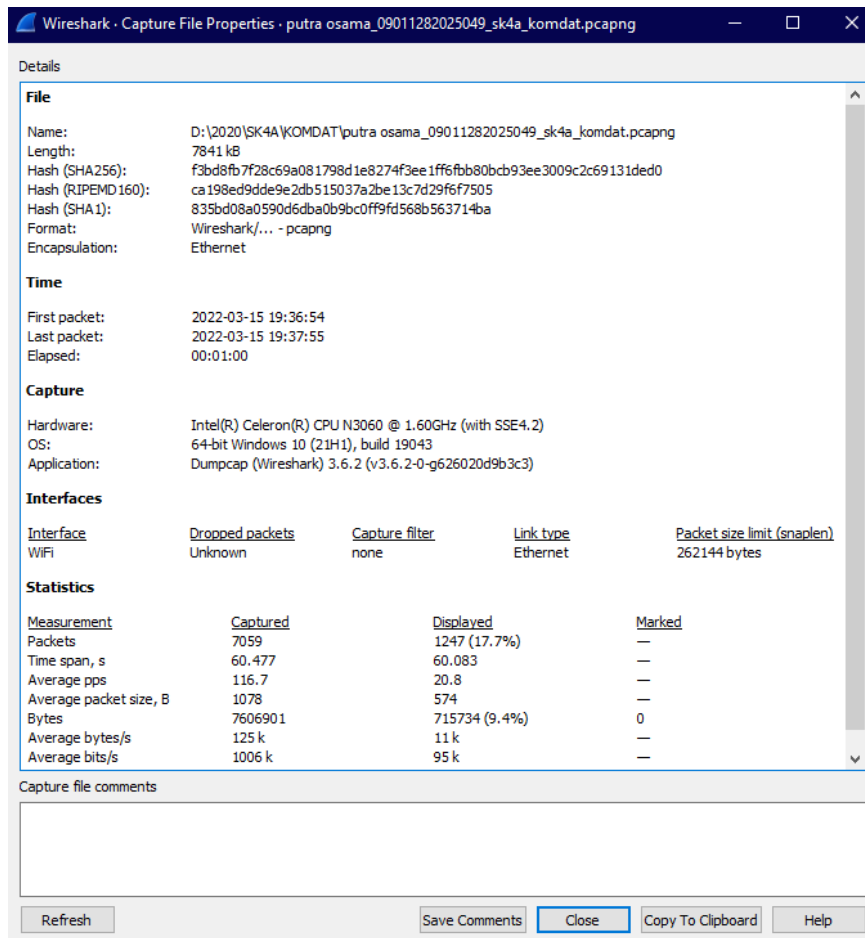
3. Stop setelah kurang lebih 1 menit capture

The image shows a Wireshark packet capture window titled 'putra osama_09011282025049_sk4a_komdat.pcapng'. The interface includes a menu bar (File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, Help) and a toolbar. A packet list table is displayed with columns: No., Time, Source, Destination, Protocol, Length, and Info. The table contains several TCP packets, including duplicate ACKs and FIN/ACK segments. The packet details pane for the selected packet (No. 6969) shows the following information:

- [Stream index: 0]
- [Conversation completeness: Incomplete (28)]
- [TCP Segment Len: 1400]
- Sequence Number: 1 (relative sequence number)
- Sequence Number (raw): 225310033
- [Next Sequence Number: 1401 (relative sequence number)]
- Acknowledgment Number: 1 (relative ack number)
- Acknowledgment number (raw): 76668455
- 0101 = Header Length: 20 bytes (5)
- > Flags: 0x010 (ACK)
- Window: 460
- [Calculated window size: 460]

The packet bytes pane at the bottom shows the raw data in hexadecimal and ASCII format.

4. Lakukan pengukuran parameter QoS



Pengukuran parameter QoS :

- **Throughput**

Rumus : (jumlah Bytes / Time span)

$$\begin{aligned}
 &: (7606901 \text{ Bytes} / 60,477 \text{ s}) = 125782 \text{ Bytes/s} \\
 &= 126 \text{ KB/s} \\
 &= 126 \times 8 \\
 &= 1008 \text{ Kb/s}
 \end{aligned}$$

Packet loss

Rumus : (((Paket dikirim – paket diterima) / paket dikirim) x 100)

$$: (((7059 - 5812) / 7059) \times 100 = 17,665$$

Delay

1229	6950	58,313430				58,313430	58,325271	0,011841
1230	6951	58,325271				58,325271	58,362727	0,037456
1231	6952	58,362727				58,362727	58,362727	0
1232	6953	58,362727				58,362727	58,684964	0,322237
1233	6954	58,684964				58,684964	58,753223	0,068259
1234	6955	58,753223				58,753223	59,688417	0,935194
1235	6956	59,688417				59,688417	59,688605	0,000188
1236	6957	59,688605				59,688605	59,689141	0,000536
1237	6958	59,689141				59,689141	59,689260	0,000119
1238	6959	59,689260				59,689260	59,714967	0,025707
1239	6960	59,714967				59,714967	59,714967	0
1240	6961	59,714967				59,714967	59,715138	0,000171
1241	6962	59,715138				59,715138	59,715195	5,7E-05
1242	6963	59,715195				59,715195	59,729121	0,013926
1243	6964	59,729121				59,729121	59,729121	0
1244	6965	59,729121				59,729121	59,741021	0,0119
1245	6966	59,741021				59,741021	59,741127	0,000106
1246	6967	59,741127				59,741127	60,040763	0,299636
1247	6968	60,040763				60,040763	60,082958	0,042195
1248	6969	60,082958						
1249						Total Delay :		60,082958
1250						Rata-rata :		0,01033774
1251								

Jitter

	-0,000348	0,000536	0,000884
	0,000417	0,000119	-0,0003
	-0,025588	0,025707	0,051295
	0,025707	0	-0,02571
	-0,000171	0,000171	0,000342
	0,000114	5,7E-05	-5,7E-05
	-0,013869	0,013926	0,027795
	0,013926	0	-0,01393
	-0,0119	0,0119	0,0238
	0,011794	0,000106	-0,01169
	-0,29953	0,299636	0,599166
	0,257441	0,042195	-0,21525
	Total Jitter :		60,11522
	Rata-rata		0,010343