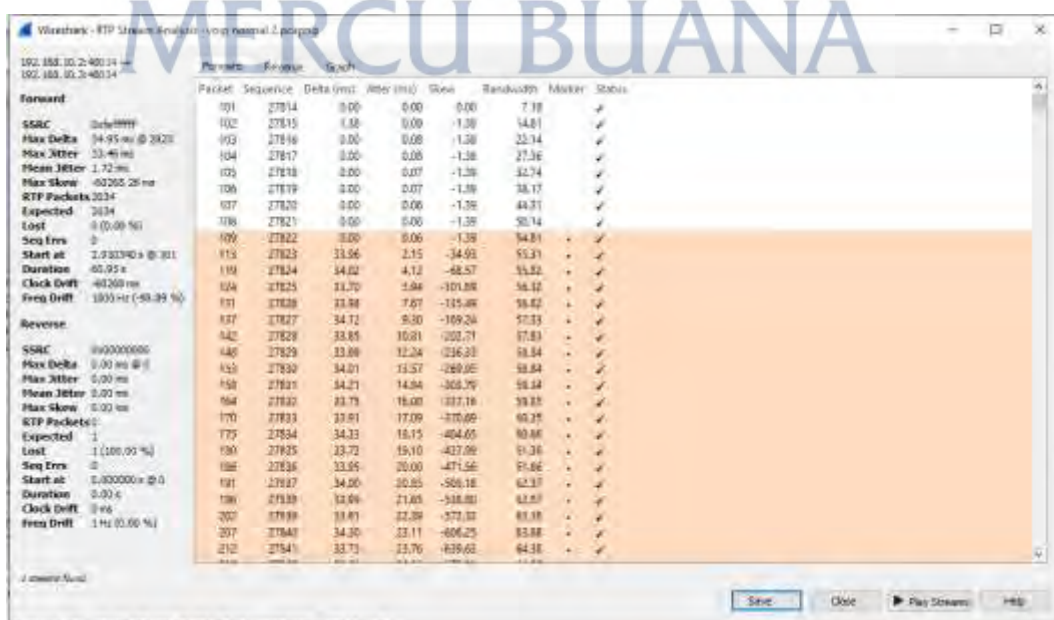
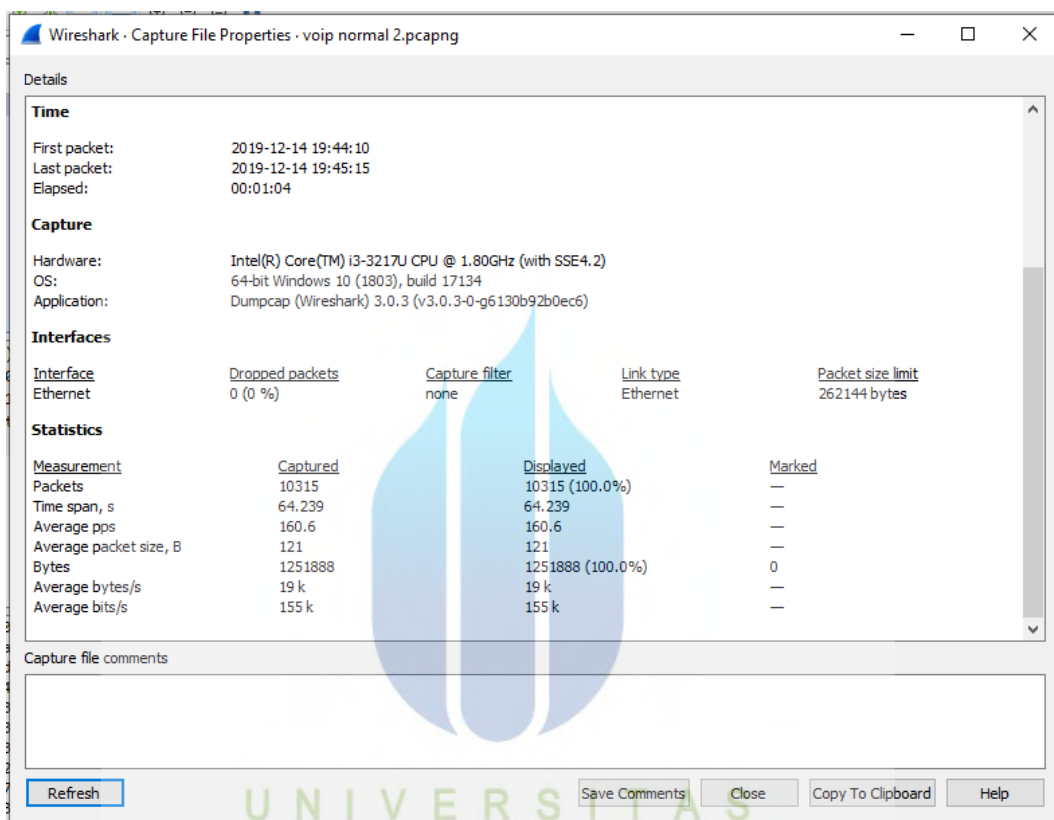


LAMPIRAN

Data hasil dari pengujian menggunakan aplikasi *wireshark*.

1. Hasil pada saat kondisi normal



2. Hasil pada saat kondisi *network congest*

Wireshark · Capture File Properties · voip congest 2.pcapng

Details

Time

First packet: 2019-12-14 19:11:23
 Last packet: 2019-12-14 19:12:42
 Elapsed: 00:01:18

Capture

Hardware: Intel(R) Core(TM) i3-3217U CPU @ 1.80GHz (with SSE4.2)
 OS: 64-bit Windows 10 (1803), build 17134
 Application: Dumpcap (Wireshark) 3.0.3 (v3.0.3-0-g6130b92b0ec6)

Interfaces

Interface	Dropped packets	Capture filter	Link type	Packet size limit
Ethernet	0 (0 %)	none	Ethernet	262144 bytes

Statistics

Measurement	Captured	Displayed	Marked
Packets	7627	7627 (100.0%)	—
Time span, s	78.271	78.271	—
Average pps	97.4	97.4	—
Average packet size, B	119	119	—
Bytes	907882	907882 (100.0%)	0
Average bytes/s	11 k	11 k	—
Average bits/s	92 k	92 k	—

Capture file comments

Buttons: Refresh, Save Comments, Close, Copy To Clipboard, Help

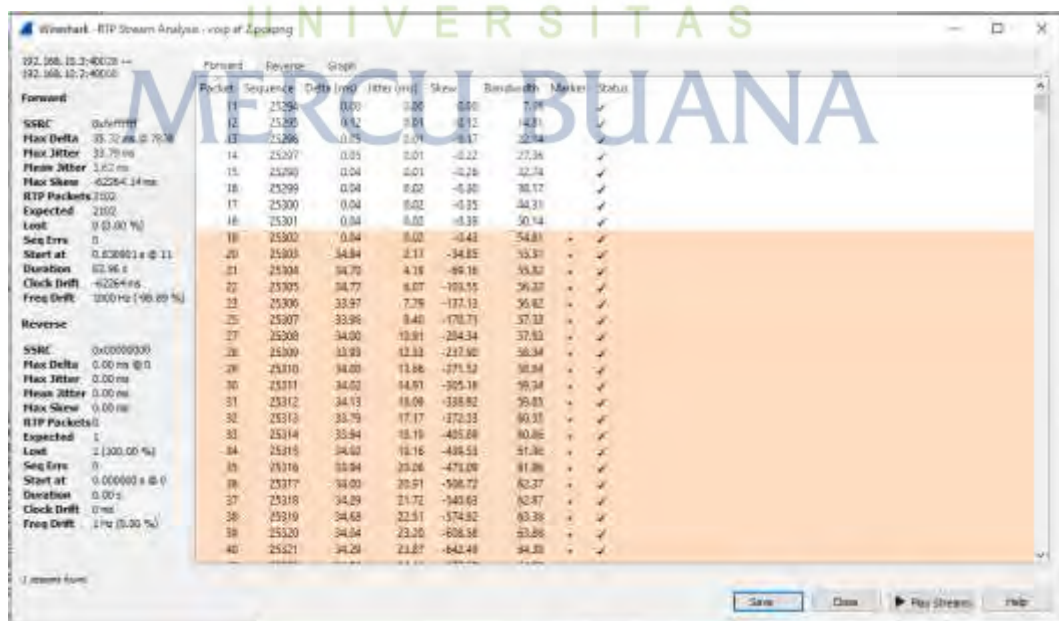
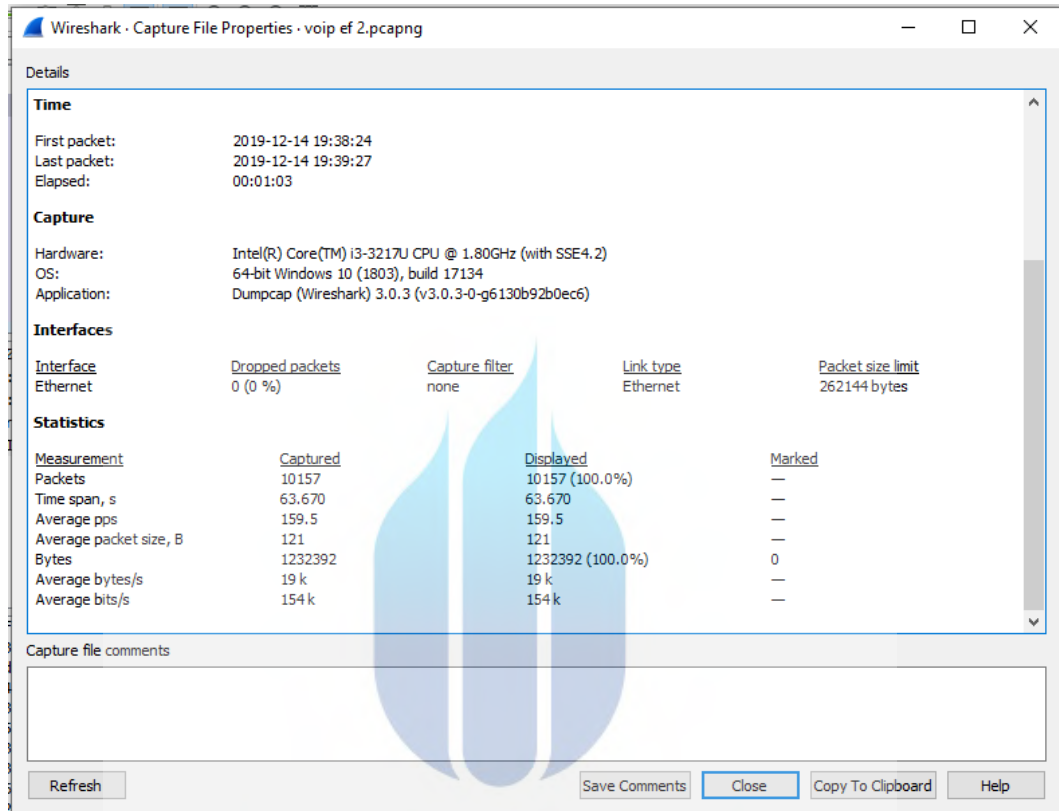
Wireshark · RTP Stream Analysis · voip congest 2.pcapng

Forward Reverse Graph

Packet	Sequence	Delta (ms)	Jitter (ms)	Skew	Bandwidth	Marker	Status
229	21346	0.00	0.00	0.00	6.50		✓
140	21391	0.07	0.00	-0.00	6.50		✓
141	21392	0.00	0.00	-0.00	6.50		✓
142	21393	0.00	0.00	-0.00	6.50		✓
143	21394	0.00	0.00	-0.00	6.50		✓
144	21395	0.00	0.00	-0.00	6.50		✓
145	21396	0.00	0.00	-0.00	6.50		✓
146	21397	0.00	0.00	-0.00	6.50		✓
147	21398	0.00	0.00	-0.00	6.50		✓
148	21399	0.00	0.00	-0.00	6.50		✓
149	21400	0.00	0.00	-0.00	6.50		✓
150	21401	0.00	0.00	-0.00	6.50		✓
151	21402	0.00	0.00	-0.00	6.50		✓
152	21403	0.00	0.00	-0.00	6.50		✓
153	21404	0.00	0.00	-0.00	6.50		✓
154	21405	0.00	0.00	-0.00	6.50		✓
155	21406	0.00	0.00	-0.00	6.50		✓
156	21407	0.00	0.00	-0.00	6.50		✓
157	21408	0.00	0.00	-0.00	6.50		✓
158	21409	0.00	0.00	-0.00	6.50		✓
159	21410	0.00	0.00	-0.00	6.50		✓
160	21411	0.00	0.00	-0.00	6.50		✓
161	21412	0.00	0.00	-0.00	6.50		✓
162	21413	0.00	0.00	-0.00	6.50		✓
163	21414	0.00	0.00	-0.00	6.50		✓
164	21415	0.00	0.00	-0.00	6.50		✓
165	21416	0.00	0.00	-0.00	6.50		✓
166	21417	0.00	0.00	-0.00	6.50		✓
167	21418	0.00	0.00	-0.00	6.50		✓
168	21419	0.00	0.00	-0.00	6.50		✓
169	21420	0.00	0.00	-0.00	6.50		✓
170	21421	0.00	0.00	-0.00	6.50		✓
171	21422	0.00	0.00	-0.00	6.50		✓
172	21423	0.00	0.00	-0.00	6.50		✓
173	21424	0.00	0.00	-0.00	6.50		✓
174	21425	0.00	0.00	-0.00	6.50		✓
175	21426	0.00	0.00	-0.00	6.50		✓
176	21427	0.00	0.00	-0.00	6.50		✓
177	21428	0.00	0.00	-0.00	6.50		✓
178	21429	0.00	0.00	-0.00	6.50		✓
179	21430	0.00	0.00	-0.00	6.50		✓
180	21431	0.00	0.00	-0.00	6.50		✓
181	21432	0.00	0.00	-0.00	6.50		✓
182	21433	0.00	0.00	-0.00	6.50		✓
183	21434	0.00	0.00	-0.00	6.50		✓
184	21435	0.00	0.00	-0.00	6.50		✓
185	21436	0.00	0.00	-0.00	6.50		✓
186	21437	0.00	0.00	-0.00	6.50		✓
187	21438	0.00	0.00	-0.00	6.50		✓
188	21439	0.00	0.00	-0.00	6.50		✓
189	21440	0.00	0.00	-0.00	6.50		✓
190	21441	0.00	0.00	-0.00	6.50		✓
191	21442	0.00	0.00	-0.00	6.50		✓
192	21443	0.00	0.00	-0.00	6.50		✓
193	21444	0.00	0.00	-0.00	6.50		✓
194	21445	0.00	0.00	-0.00	6.50		✓
195	21446	0.00	0.00	-0.00	6.50		✓
196	21447	0.00	0.00	-0.00	6.50		✓
197	21448	0.00	0.00	-0.00	6.50		✓
198	21449	0.00	0.00	-0.00	6.50		✓
199	21450	0.00	0.00	-0.00	6.50		✓
200	21451	0.00	0.00	-0.00	6.50		✓
201	21452	0.00	0.00	-0.00	6.50		✓
202	21453	0.00	0.00	-0.00	6.50		✓
203	21454	0.00	0.00	-0.00	6.50		✓
204	21455	0.00	0.00	-0.00	6.50		✓
205	21456	0.00	0.00	-0.00	6.50		✓
206	21457	0.00	0.00	-0.00	6.50		✓
207	21458	0.00	0.00	-0.00	6.50		✓
208	21459	0.00	0.00	-0.00	6.50		✓
209	21460	0.00	0.00	-0.00	6.50		✓
210	21461	0.00	0.00	-0.00	6.50		✓
211	21462	0.00	0.00	-0.00	6.50		✓
212	21463	0.00	0.00	-0.00	6.50		✓
213	21464	0.00	0.00	-0.00	6.50		✓
214	21465	0.00	0.00	-0.00	6.50		✓
215	21466	0.00	0.00	-0.00	6.50		✓
216	21467	0.00	0.00	-0.00	6.50		✓
217	21468	0.00	0.00	-0.00	6.50		✓
218	21469	0.00	0.00	-0.00	6.50		✓
219	21470	0.00	0.00	-0.00	6.50		✓
220	21471	0.00	0.00	-0.00	6.50		✓
221	21472	0.00	0.00	-0.00	6.50		✓
222	21473	0.00	0.00	-0.00	6.50		✓
223	21474	0.00	0.00	-0.00	6.50		✓
224	21475	0.00	0.00	-0.00	6.50		✓
225	21476	0.00	0.00	-0.00	6.50		✓
226	21477	0.00	0.00	-0.00	6.50		✓
227	21478	0.00	0.00	-0.00	6.50		✓
228	21479	0.00	0.00	-0.00	6.50		✓
229	21480	0.00	0.00	-0.00	6.50		✓
230	21481	0.00	0.00	-0.00	6.50		✓
231	21482	0.00	0.00	-0.00	6.50		✓
232	21483	0.00	0.00	-0.00	6.50		✓
233	21484	0.00	0.00	-0.00	6.50		✓
234	21485	0.00	0.00	-0.00	6.50		✓
235	21486	0.00	0.00	-0.00	6.50		✓
236	21487	0.00	0.00	-0.00	6.50		✓
237	21488	0.00	0.00	-0.00	6.50		✓
238	21489	0.00	0.00	-0.00	6.50		✓
239	21490	0.00	0.00	-0.00	6.50		✓
240	21491	0.00	0.00	-0.00	6.50		✓
241	21492	0.00	0.00	-0.00	6.50		✓
242	21493	0.00	0.00	-0.00	6.50		✓
243	21494	0.00	0.00	-0.00	6.50		✓
244	21495	0.00	0.00	-0.00	6.50		✓
245	21496	0.00	0.00	-0.00	6.50		✓
246	21497	0.00	0.00	-0.00	6.50		✓
247	21498	0.00	0.00	-0.00	6.50		✓
248	21499	0.00	0.00	-0.00	6.50		✓
249	21500	0.00	0.00	-0.00	6.50		✓

Buttons: Save, Close, Play Streams, Help

3. Hasil pada saat kondisi *network congest* menggunakan QoS *policy forwarding class (EF)*



DOKUMENTASI

1. Foto kondisi lab uji



2. Foto *router* nokia R1 dan R3



3. Foto *router* nokia R2



4. Foto peneliti di lab





Telecom Professional

Dhio Medianto

Address : Jl Raden Fatah RT01/03 Tangerang
D-o-B : Jakarta, 26th May 1996
Phone : +62 821 22332131
Email : DhioM4@gmail.com
LinkedIn : <https://linkedin.com/in/dhio-medianto>

WORK EXPERIENCES

July 2019 - Now

PT. Datacomm Diangraha, Jakarta

As a IP Service Problem Management, Responsible for:

- Handling by remote multi vendors routers (ALU/Nokia, Juniper, Cisco, Huawei).
- Troubleshooting and traffic-engineering MPLS backbone problem.
- Fault handling domestic internet problem of Indosat Doredoo customer.
- Optimize link service customer end to end.
- Fault handling Indosat internet service, ex: IDIA, INIX, IIP.
- Optimization and create services L2vpn (VPLS, VPMS) and L3vpn (VPRN).
- Monitoring the backbone network traffic and condition of existing network equipment (Routers/Metro-e).

April 2018 - July 2019

As a Network Engineer, Responsible for:

- Staging of the metro-e router device in logistics warehouse
- Installing and configure Metro-e Nokia routers family.
- Supervising the hardware installation done by 3rd party company.
- Upgrade firmware, module, bandwidth capabilities.
- Perform the migration
- Perform test accept the device
- Perform standby at customer site
- Troubleshooting when there is fault / problems with the devices.

August 2017 - March 2018

PT. Bank Rakyat Indonesia, Jakarta

As a Network Operations Centre, Responsible for:

- Monitoring availability & event management that occurs in remote groups per regional office, M2M, uker PD and backhaul providers.
- Open a trouble ticket for all disturbances including power outages (Non-SLA) and others.
- Coordinations with the work unit team and CRO for first level handling (FLH).
- Troubleshooting FLH on a remote monitor, authorized to coordinate directly with the vendor / provider of the jarkom.
- Serve to change routing so that work units that are experiencing problems can use the backup server and tasked to reverse routing to the main server
- Make an Incident Report and update the process via WA / Telegram / Email until close

EDUCATION

Sept 2016 – Now

Bachelor's degree, Electro Engineering

Mercubuana University, Jakarta

The Bachelor's degree of Electro Engineering concentration Telecommunication Engineering at Mercubuana University Jakarta.

Sept 2014 – Aug 2017

Diploma 3, Telecommunication Engineering

Academy Telecommunication Sandhy Putra, Jakarta

Program Earning the Diploma Three (D3) of Electro Engineering concentration Telecommunication Engineering at Academy Tellecommunication Sandhy Putra Jakarta in 3 years.

(Graduate IPK : 3.83)

PERSONAL SKILLS

Basic language(s)

Indonesia
English

Communication skills

UNDISTORING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
A	A	A	A	A
B	B	B	B	B

Levels A: Fluent – B: Good user – C: Basic user

Team work

I have worked in various types of teams from different people and country, Manage team and schedule for project and maintenance team.

Medisting and Presentation Skills

I work with a lot of targets and achievement for the improvement and review with the customer to ensure that the work has reached the target.

Computer skills

Tools and Software :

- SecureCRT, PUTTY, Teamviewer, VNC Viewer
- Packet Tracer, GNS3, FileZilla, WinSCP, ExamDiff
- Proteus/ISIS, Arduino, Eclipse, AVR, PCAAD
- Microsoft Office
- Basic Linux and Networking
- Basic Cisco Configuration
- Basic Nokia Network Routing Configuration
- Adobe Photoshop, CorelDraw, AutoCAD

Accomplishments

Certifications

- NRS I - Nokia Scalable IP Networks
- NRS II - Nokia Services Architecture
- NRS II - Nokia Interior Routing Protocols
- TOEIC Score 628

I am declared all of my data above is valid and can be

Dhio Medianto