

LAPORAN REPOINTING ANTENNA KARIANGAU POWER



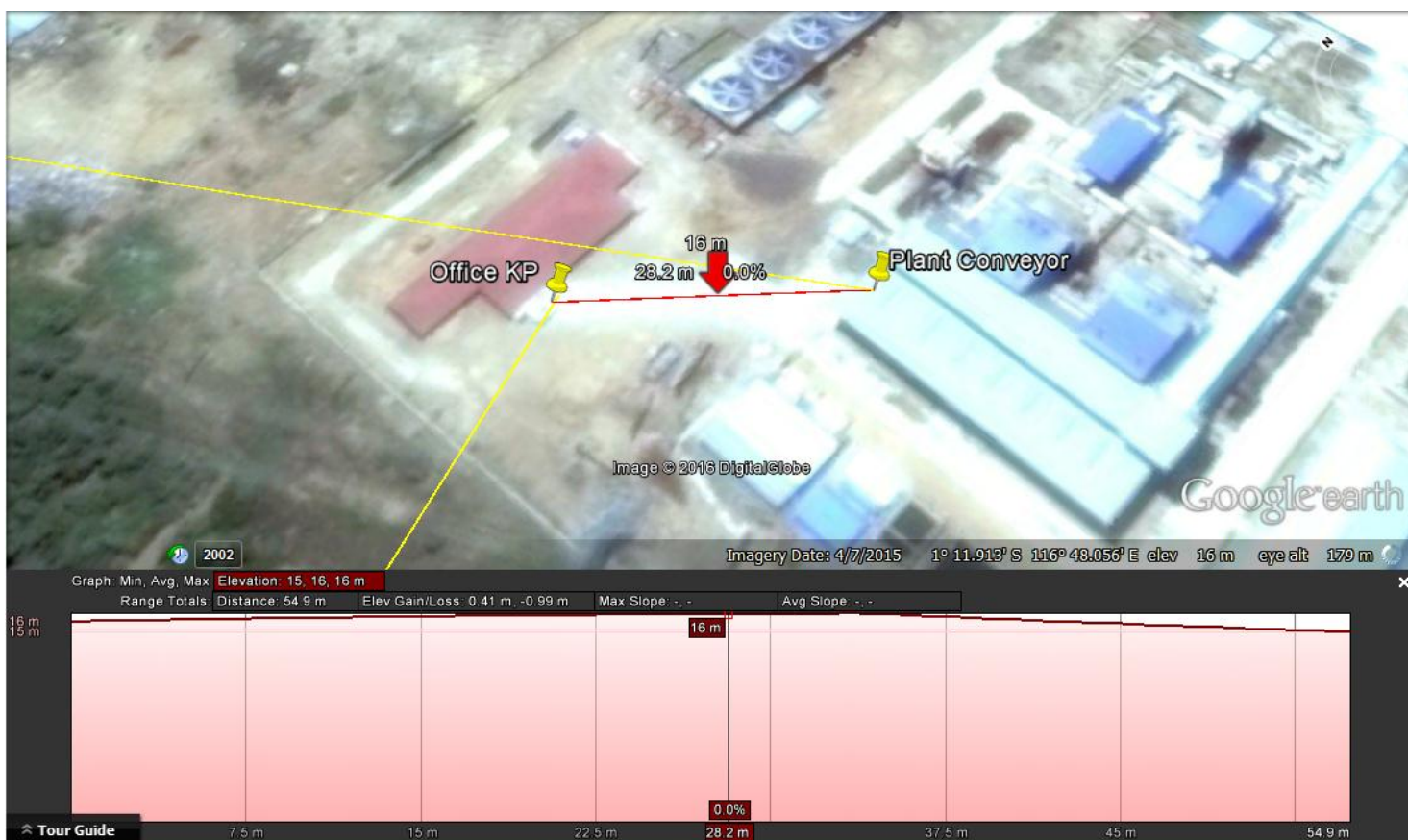
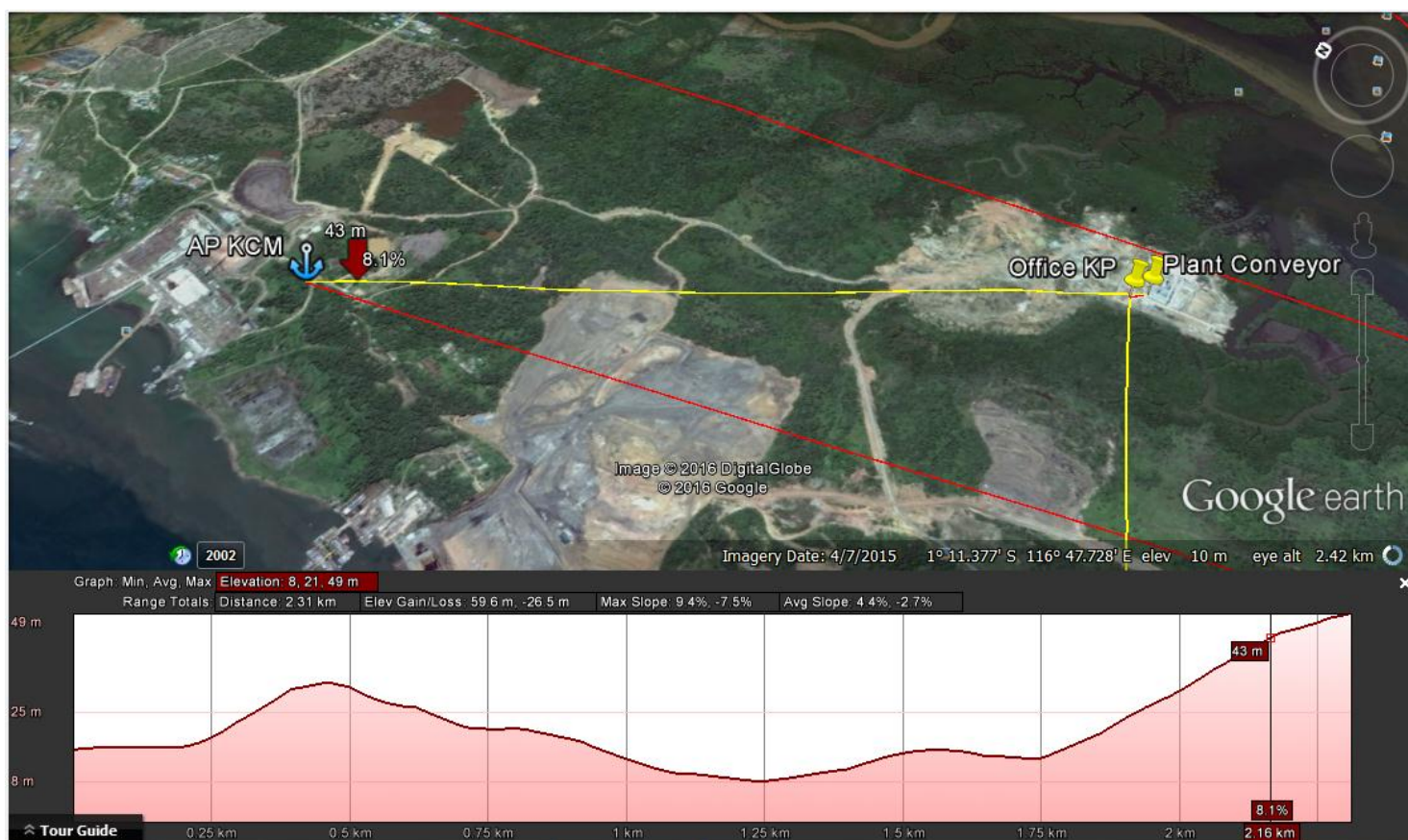
DISUSUN OLEH :

Pandu Bangun .R
Yanuar Saad Hermawan

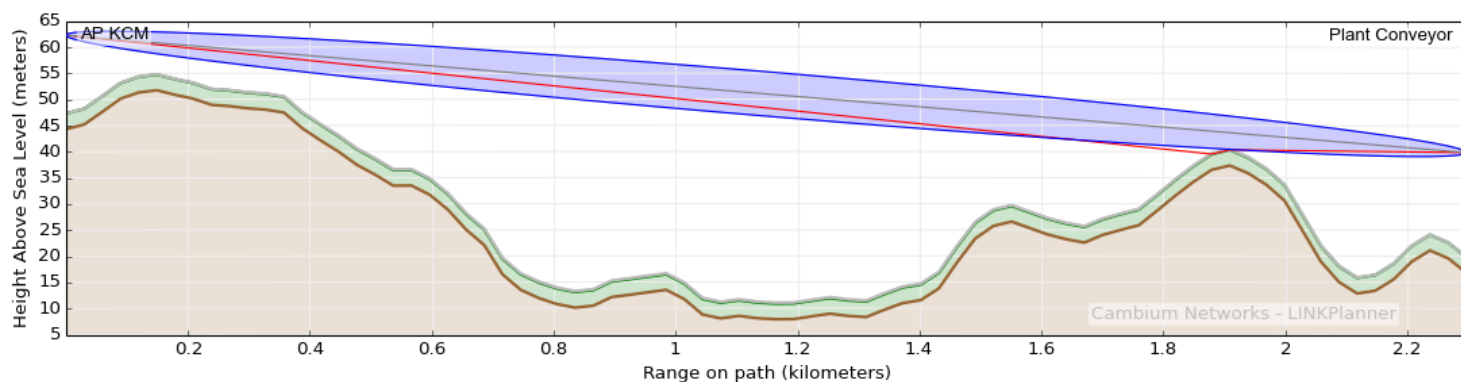
Tanggal :

05 September 2016

Detail pekerjaan adalah tentang repointing antenna Kariangau Power **SWOS #35641** dan berikut penjelasannya :



Profile: 2.3 kilometers, Line-of-Sight



Configuration at Each End

AP KCM	Plant Conveyor
Cambium Networks Integrated Dual Polar Antenna (23.0dBi)	Cambium Networks Integrated Dual Polar Antenna (23.0dBi)
Antenna Height : 18 meters (Max height at site is 10.0 m)	Antenna Height : 23 meters (Max height at site is 10.0 m)

admin@192.168.44.156 (PTP Kariangau Power) - WinBox v5.16 on RB SXT 5HPnD (mipsbe)

Quick Set

Interfaces

Wireless

Bridge

PPP

Switch

Mesh

IP

MPLS

Routing

System

Queues

Files

Log

Radius

Tools

New Terminal

MetaROUTER

Make Supout.tif

Manual

Exit

Bandwidth Test

Test To: 192.168.33.195

Protocol: udp

Local UDP Tx Size: 1500

Remote UDP Tx Size: 1500

Direction: receive

TCP Connection Count: 20

Local Tx Speed: 1m

Remote Tx Speed: 1m

User: admin

Password: snxperion

Lost Packets: 0

Tx/Rx Current: 0 bps/0 bps

Tx/Rx 10s Average: 0 bps/0 bps

Tx/Rx Total Average: 0 bps/0 bps

can't connect

Wireless Tables

Interfaces

Nstreme Dual

Access List

Reg

Radio Name	MAC Address
KCM-KP	D4:CA:6D:B7:33:6D

1 item

AP Client <D4:CA:6D:B7:33:6D>

General

802.1x

Signal

Nstreme

NV2

Statistics

Last Activity: 0.010 s

Tx/Rx Signal Strength: -63/-63 dBm

Tx/Rx Signal Strength Ch0: -63/-63 dBm

Tx/Rx Signal Strength Ch1: -85/-85 dBm

Tx/Rx Signal Strength Ch2:

Signal To Noise: 57 dB

Tx/Rx CCQ: 61/73 %

P Throughput:

Signal Strengths

Rate	Strength	Last Measured
HT20-7	-68	00:00:03.99
HT20-0	-66	00:00:05.21
HT20-2	-66	00:00:01.64
HT20-4	-66	00:00:00.65
HT20-6	-66	00:00:05.42
HT20-1	-65	00:00:00.02
HT20-3	-65	00:00:01.33
HT20-5	-65	00:00:00.27
9Mbps	-64	00:00:03.33
12Mbps	-64	00:00:02.65
18Mbps	-64	00:00:02.36
36Mbps	-64	00:00:02.19

admin@D4:CA:6D:48:DA:A7 (PTP Kariangau Power) - WinBox v5.16 on RB SXT SHPnD (mipsbe)

Safe Mode

RouterOS WinBox

Quick Set
Interfaces
Wireless
Bridge
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Make Supout.nf
Manual
Exit

Route List

Routes Nexthops Rules VRF

Dot Address Gateway Distance Routing Mark

AS 0.0.0.0/0 192.168.33.193 reachable bridge1 1

192.168.33.193... bridge1 reachable 0 192

Address List

Address Network Interface

192.168.33.194/28 192.168.33.192 bridge1

192.168.33.234/24 192.168.33.0 ether1

Wireless Tables

Interfaces Nstreme Dual Access List Registration Connect List Security Profiles

Radio Name MAC Address Interface Uptime AP W Last Activit Tx/Rx Signal Tx/Rx Rate

KCM-KP D4:CA:6D:B7:33:6D wlan1 00:10:25 yes no 0.000 -63/-64 26.0Mbps

admin@D4:CA:6D:48:DA:A7 (PTP Kariangau Power) - WinBox v5.16 on RB SXT SHPnD (mipsbe)

Safe Mode

RouterOS WinBox

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Interface List

Interface Ethernet EoIP Tunnel IP Tunnel GRE Tunnel VLAN VRRP Bonding LTE

Name Type L2 MTU Tx Rx Tx Pkts Rx Pkts Tx Drop Rx Drop

R bridge1 Bridge 1598 47.9 kbps 5.0 Mbps 13 424

R ether1 Ethernet 1598 35.9 kbps 4.2 kbps 11 5

R wlan1 Wireless (Atheros 11N) 2290 16.7 kbps 5.0 Mbps 8 419

Terminal

192.168.33.195 1400 64 22ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 11ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 8ms

192.168.33.195 1400 64 23ms

192.168.33.195 1400 64 19ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 4ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 4ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 15ms

sent=80 received=80 packet-loss=0% min-rtt=4ms avg-rtt=10ms max-rtt=51ms

HOST

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 8ms

192.168.33.195 1400 64 15ms

SIZE TTL TIME STATUS

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 5ms

192.168.33.195 1400 64 6ms

192.168.33.195 1400 64 8ms

192.168.33.195 1400 64 15ms

Bandwidth Test (Running)

Test To: 192.168.33.195

Protocol: udp tcp

Local UDP Tx Size: 1500

Remote UDP Tx Size: 1500

Direction: receive

TCP Connection Count: 20

Local Tx Speed: 5M bps

Remote Tx Speed: 5m bps

Random Data

User: admin

Password: snxperion

Lost Packets: 0

Tx/Rx Current: 0 bps/5.0 Mbps

Tx/Rx 10s Average: 0 bps/4.7 Mbps

Tx/Rx Total Average: 0 bps/4.7 Mbps

running...

[illegible]

The screenshot displays the RouterOS WinBox interface. The 'Interface List' table shows the configuration for the 'wlan1' interface. The 'Bandwidth Test (Running)' window displays the test results for the 'wlan1' interface, showing a Local Tx Speed of 4.9 Mbps and a Remote Tx Speed of 4.9 Mbps. The 'Terminal' window shows the command 'run' and the output of the bandwidth test.

Interface	Name	Type	L2 MTU	Tx	Rx	Tx Pkts	Rx Pkts	Tx Dropped
Bridge	bridge1	Bridge	1598	5.1 Mbps	4.9 Mbps	431	422	
Ethernet	ether1	Ethernet	1598	51.7 kbps	6.5 kbps	14	8	
Wireless (Atheros 11N)	wlan1	Wireless (Atheros 11N)	2290	5.0 Mbps	4.9 Mbps	427	414	

Bandwidth Test (Running)

Test To: 192.168.33.195

Protocol: ☒ udp ☐ tcp

Local UDP Tx Size: 1500

Remote UDP Tx Size: 1500

Direction: both

TCP Connection Count: 20

Local Tx Speed: 5M bps

Remote Tx Speed: 5M bps

☐ Random Data

User: admin

Password: snxexperion

Lost Packets: 0

Tx/Rx Current: 4.9 Mbps/4.9 Mbps

Tx/Rx 10s Average: 4.9 Mbps/4.8 Mbps

Tx/Rx Total Average: 4.9 Mbps/4.8 Mbps

running...

admin@D4:CA:6D:30:B8:55 (Router Kariangau Power) - WinBox v6.23 on RB951-2n (mipsbe)

Safe Mode

Hide Passwords

RouterOS WinBox

Quick Set
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Address List

Address	Network	Interface
192.168.88.1/24	192.168.88.0	bridge-local
203.80.9.187/28	203.80.9.176	ether1-WAN

Route List

Routes Nexthops Rules VRF

Dest. Address	Gateway	Distance	Routing Mark	Pref. Source
0.0.0.0/0	203.80.9.185 reachable ether1-WAN	1		
192.168.88.0/...	bridge-local reachable	0		192.168.88.1
203.80.9.176/...	ether1-WAN reachable	0		203.80.9.187

3 items

AP Kariangau Power: [Nan... x +]

192.168.33.198:2222/network.cgi

airOS™

MAIN WIRELESS NETWORK ADVANCED SERVICES SYSTEM

Tools: Logout

Network Mode: Bridge

Disable Network: None

NETWORK SETTINGS

Bridge IP Address: DHCP Static

IP Address: 192.168.33.198

Netmask: 255.255.255.240

Gateway IP: 192.168.33.193

Primary DNS IP: 203.80.8.37

Secondary DNS IP: 203.80.8.38

DHCP Fallback IP: 192.168.1.20

Spanning Tree Protocol: ☐

Auto IP Aliasing: ☒

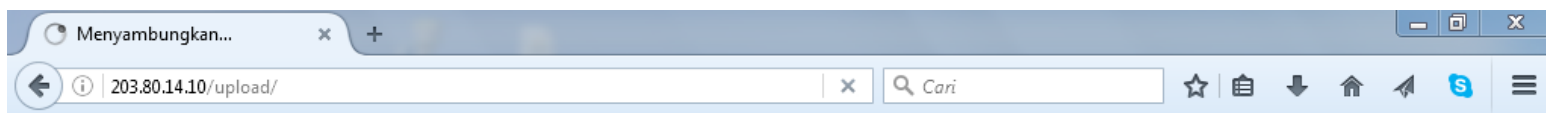
IP Aliases: Configure...

FIREWALL SETTINGS

Enable Firewall: ☐ Configure...

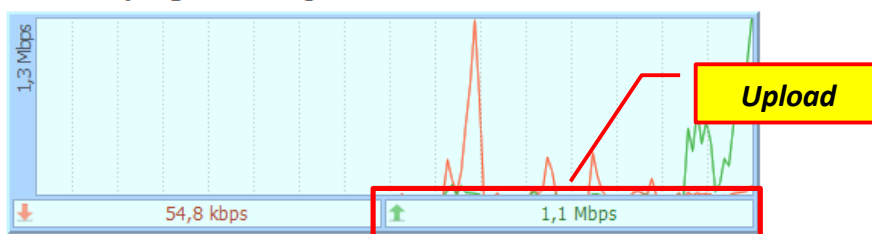
Change

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Klik [Disini](#) untuk melihat file yang telah di upload.



Mengirimkan permintaan ke 203.80.14.10...

admin@D4:CA:6D:30:B8:55 (Router Kariangau Power) - WinBox v6.23 on R8951-2n (mipsbe)

Safe Mode ☐ Hide Passwords

Quick Set

Interfaces

Wireless

Bridge

PPP

Switch

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MPLS

Routing

System

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Make Supout.nf

Manual

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Address List

Find

Interface List

Interface	Ethernet	EoIP Tunnel	IP Tunnel	GRE Tunnel	VLAN	VRRP	Bonding	LTE
Name	Type	L2 MTU	Tx	Rx	Tx Pac			
R	bridge-local	Bridge	1598	1816.7 kbps	98.8 kbps			
R	ether1-WAN	Ethernet	1600	104.1 kbps	1817.8 kbps			
RS	ether2-master1...	Ethernet	1598	1415.4 kbps	74.7 kbps			
S	ether3-slave1o...	Ethernet	1598	0 bps	0 bps			
S	ether4-slave1o...	Ethernet	1598	0 bps	0 bps			
RS	ether5-mesinf...	Ethernet	1598	8.7 kbps	0 bps			
RS	wlan1	Wireless (Atheros AR9...	2290	600.3 kbps	58.8 kbps			

7 items



Kesimpulan :

Dari hasil pengetesan link baik dari office ke BTS KCM dan dari Relay existing ke BTS KCM kami memilih PTP Plant Conveyor – BTS KCM dan melakukan reposisi antenna seperti yang terlampir pada gambar. Lalu ada PTP tambahan (existing) Plant Conveyor – Office KP dan melakukan tes bandwidth serta mengubah masing – masing IP pada perangkat indoor dan outdoor. Pada lampiran gambar diatas kami melakukan penarikan garis lurus menggunakan Google Earth dan Link Planner dan tidak ada halangan (Obstacle) secara visual.

Demikian laporan ini dibuat dan disampaikan, kami ucapkan terima kasih.