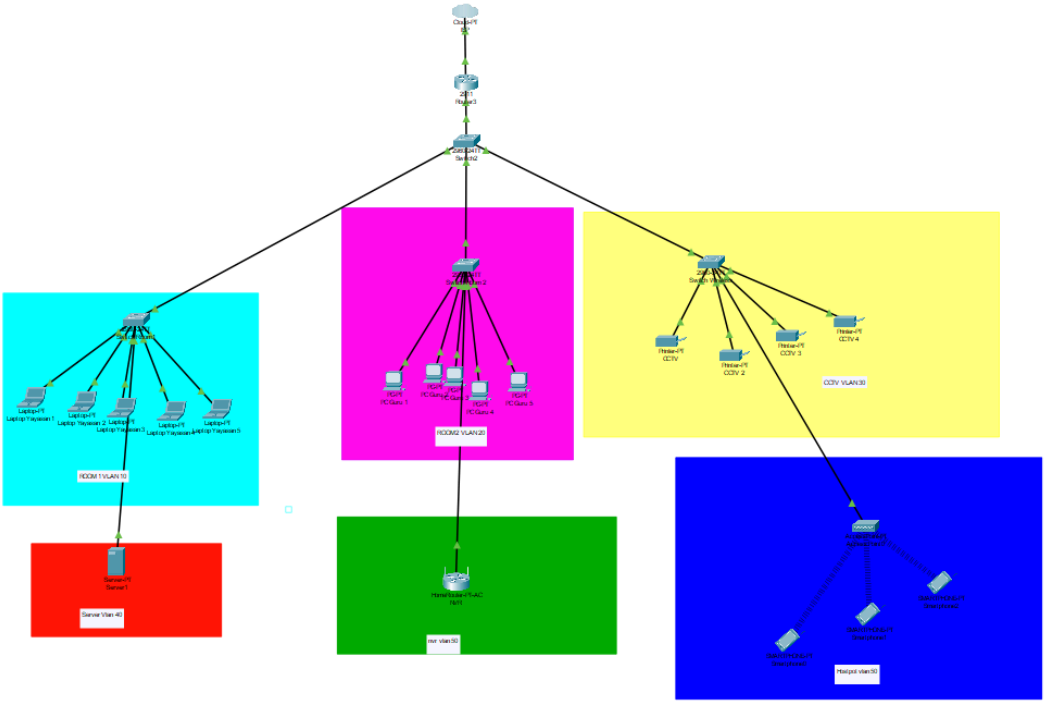
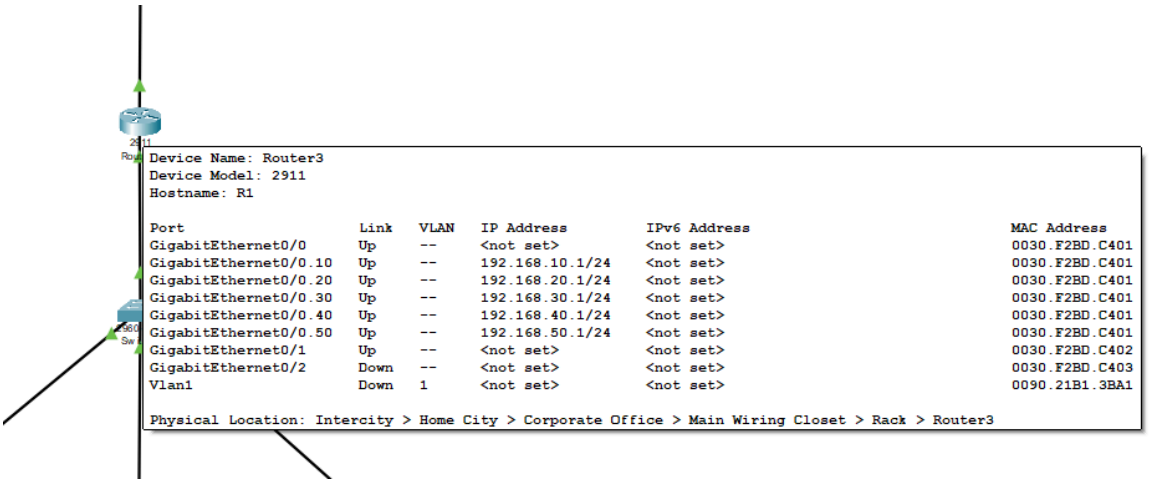
TOPOLOGI



Router utama (bagian atas) – berfungsi sebagai penghubung ke jaringan luar/internet.
Switch utama (tengah atas) – menghubungkan router dengan beberapa jaringan di bawahnya.
Beberapa switch tambahan di tiap area berwarna:
Area biru muda (Client Kantor Depan)
Switch
Beberapa PC/laptop client
Server Kantor Depan
Area ungu/magenta (Client Kantor Tengah)
Switch
Beberapa PC/laptop client
Area kuning (Client Kantor Belakang)
Beberapa Access Point (AP)
Beberapa laptop/PC wireless client
Area biru tua (Client Lab)
Switch
Beberapa PC/laptop
Area merah (Server Utama)
Server (biasanya digunakan untuk DHCP, file server, atau aplikasi)
Area hijau (Firewall)
1 Router utama
1 Switch utama
3 Switch lokal di masing-masing VLAN access and trunk
1 Access Point
Beberapa PC/laptop client di tiap Vlan
1 Server (server utama)
1 NVR
4 CCTV

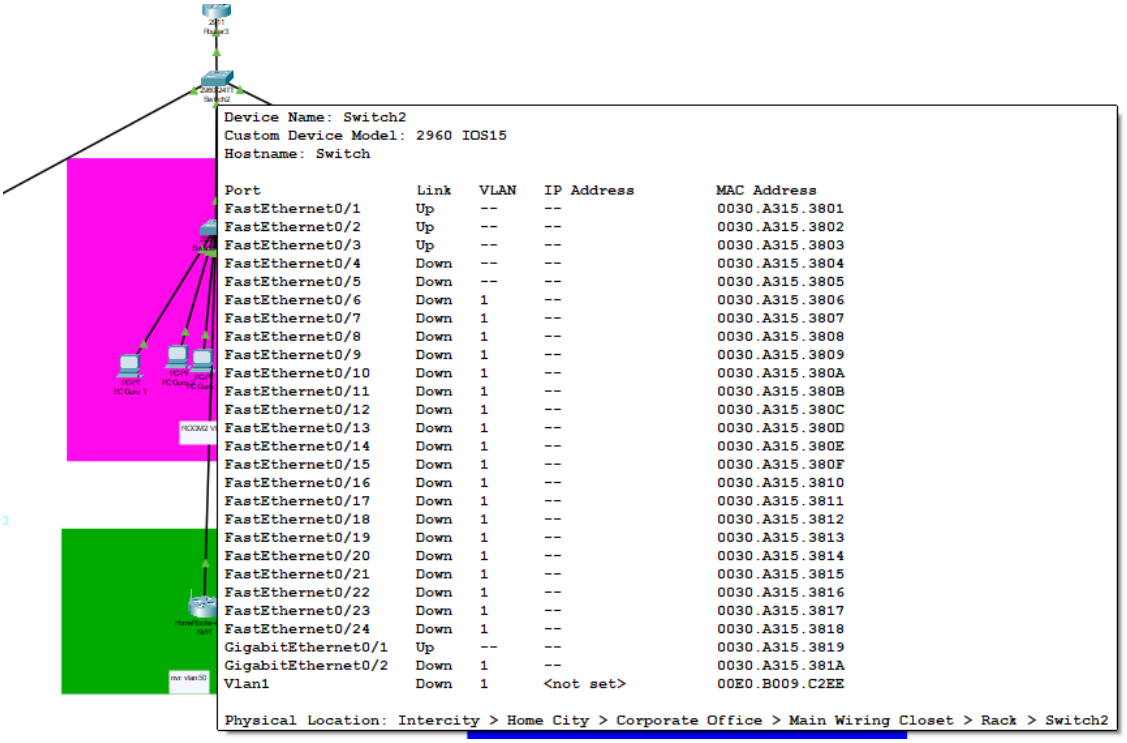
Setup Di router



Interface	Status	IP Address/Subnet	Fungsi Kemungkinan	Keterangan
GigabitEthernet0/0	Up	(tidak ada IP)	Trunk Port	Port utama menuju ke switch VLAN
GigabitEthernet0/0.10	Up	192.168.10.1/24	VLAN 10	Misal: Departemen 1 / Client Area 1
GigabitEthernet0/0.20	Up	192.168.20.1/24	VLAN 20	Misal: Departemen 2 / Client Area 2
GigabitEthernet0/0.30	Up	192.168.30.1/24	VLAN 30	Misal: Departemen 3 / Wireless Area
GigabitEthernet0/0.40	Up	192.168.40.1/24	VLAN 40	Misal: Server Area
GigabitEthernet0/0.50	Up	192.168.50.1/24	VLAN 50	Misal: Management atau Lab Area
GigabitEthernet0/1	Down	—	Tidak digunakan	Bisa disiapkan untuk jalur WAN / cadangan
GigabitEthernet0/2	Down	—	Tidak digunakan	Sama seperti di atas
Vlan1	Down	—	Default VLAN	Tidak aktif

GigabitEthernet0/0.10 → VLAN 10 → 192.168.10.1/24 DHCP POOL
GigabitEthernet0/0.20 → VLAN 20 → 192.168.20.1/24 DHCP POOL
GigabitEthernet0/0.30 → VLAN 30 → 192.168.30.1/24 DHCP POOL
GigabitEthernet0/0.40 → VLAN 40 → 192.168.40.1/24 DHCP POOL
GigabitEthernet0/0.50 → VLAN 50 → 192.168.50.1/24 DHCP POOL

DI SWITCH UTAMA



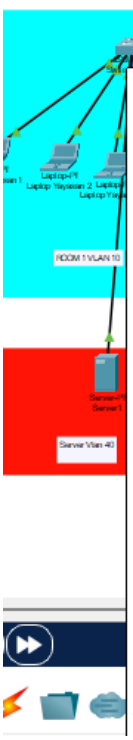
Device Name: Switch2
Custom Device Model: 2960 IOS15
Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	--	--	0030.A315.3801
FastEthernet0/2	Up	--	--	0030.A315.3802
FastEthernet0/3	Up	--	--	0030.A315.3803
FastEthernet0/4	Down	--	--	0030.A315.3804
FastEthernet0/5	Down	--	--	0030.A315.3805
FastEthernet0/6	Down	1	--	0030.A315.3806
FastEthernet0/7	Down	1	--	0030.A315.3807
FastEthernet0/8	Down	1	--	0030.A315.3808
FastEthernet0/9	Down	1	--	0030.A315.3809
FastEthernet0/10	Down	1	--	0030.A315.380A
FastEthernet0/11	Down	1	--	0030.A315.380B
FastEthernet0/12	Down	1	--	0030.A315.380C
FastEthernet0/13	Down	1	--	0030.A315.380D
FastEthernet0/14	Down	1	--	0030.A315.380E
FastEthernet0/15	Down	1	--	0030.A315.380F
FastEthernet0/16	Down	1	--	0030.A315.3810
FastEthernet0/17	Down	1	--	0030.A315.3811
FastEthernet0/18	Down	1	--	0030.A315.3812
FastEthernet0/19	Down	1	--	0030.A315.3813
FastEthernet0/20	Down	1	--	0030.A315.3814
FastEthernet0/21	Down	1	--	0030.A315.3815
FastEthernet0/22	Down	1	--	0030.A315.3816
FastEthernet0/23	Down	1	--	0030.A315.3817
FastEthernet0/24	Down	1	--	0030.A315.3818
GigabitEthernet0/1	Up	--	--	0030.A315.3819
GigabitEthernet0/2	Down	1	--	0030.A315.381A
Vlan1	Down	1	<not set>	00E0.B009.C2EE

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch2

Switch(config)# interface gigabitEthernet0/1
Switch(config-if)# switchport mode trunk
Switch(config-if)# switchport trunk encapsulation dot1q
Switch(config-if)# switchport trunk allowed vlan 10,20,30,40,50
Switch(config-if)# no shutdown

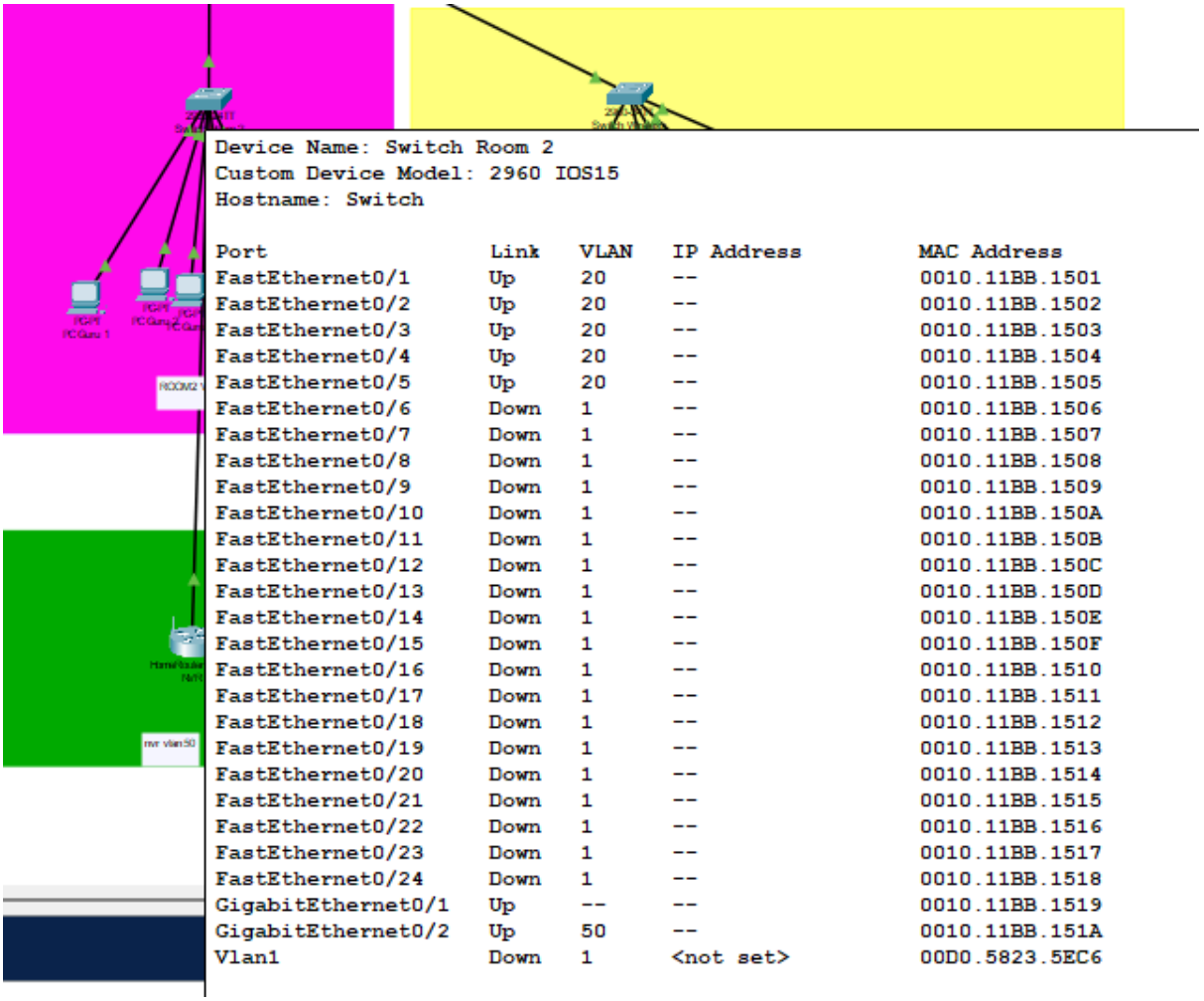
DI SWITCH ROOM 1



```
Device Name: Switch Room 1
Custom Device Model: 2960 IOS15
Hostname: Switch

Port                Link   VLAN   IP Address         MAC Address
FastEthernet0/1     Up     10     --                 0090.2B04.7B01
FastEthernet0/2     Up     10     --                 0090.2B04.7B02
FastEthernet0/3     Up     10     --                 0090.2B04.7B03
FastEthernet0/4     Up     10     --                 0090.2B04.7B04
FastEthernet0/5     Up     10     --                 0090.2B04.7B05
FastEthernet0/6     Down   40     --                 0090.2B04.7B06
FastEthernet0/7     Down   1      --                 0090.2B04.7B07
FastEthernet0/8     Down   1      --                 0090.2B04.7B08
FastEthernet0/9     Down   1      --                 0090.2B04.7B09
FastEthernet0/10    Down   1      --                 0090.2B04.7B0A
FastEthernet0/11    Down   1      --                 0090.2B04.7B0B
FastEthernet0/12    Down   1      --                 0090.2B04.7B0C
FastEthernet0/13    Down   1      --                 0090.2B04.7B0D
FastEthernet0/14    Down   1      --                 0090.2B04.7B0E
FastEthernet0/15    Down   1      --                 0090.2B04.7B0F
FastEthernet0/16    Down   1      --                 0090.2B04.7B10
FastEthernet0/17    Down   1      --                 0090.2B04.7B11
FastEthernet0/18    Down   1      --                 0090.2B04.7B12
FastEthernet0/19    Down   1      --                 0090.2B04.7B13
FastEthernet0/20    Down   1      --                 0090.2B04.7B14
FastEthernet0/21    Down   1      --                 0090.2B04.7B15
FastEthernet0/22    Down   1      --                 0090.2B04.7B16
FastEthernet0/23    Down   1      --                 0090.2B04.7B17
FastEthernet0/24    Down   1      --                 0090.2B04.7B18
GigabitEthernet0/1  Up     --     --                 0090.2B04.7B19
GigabitEthernet0/2  Up     40     --                 0090.2B04.7B1A
Vlan1               Down   1      <not set>          0002.4A16.3D42
```

Port eth 1 vlan access 10 Laptop yayasan
Port eth 2 vlan access 10 Laptop yayasan
Port eth 3 vlan access 10 Laptop yayasan
Port eth 4 vlan access 10 Laptop yayasan
Port eth 5 vlan access 10 Laptop yayasan
Port gig0/1 trunk to Sw utama Vlan 10 and 40
Port gig0/2 vlan access 40 Server

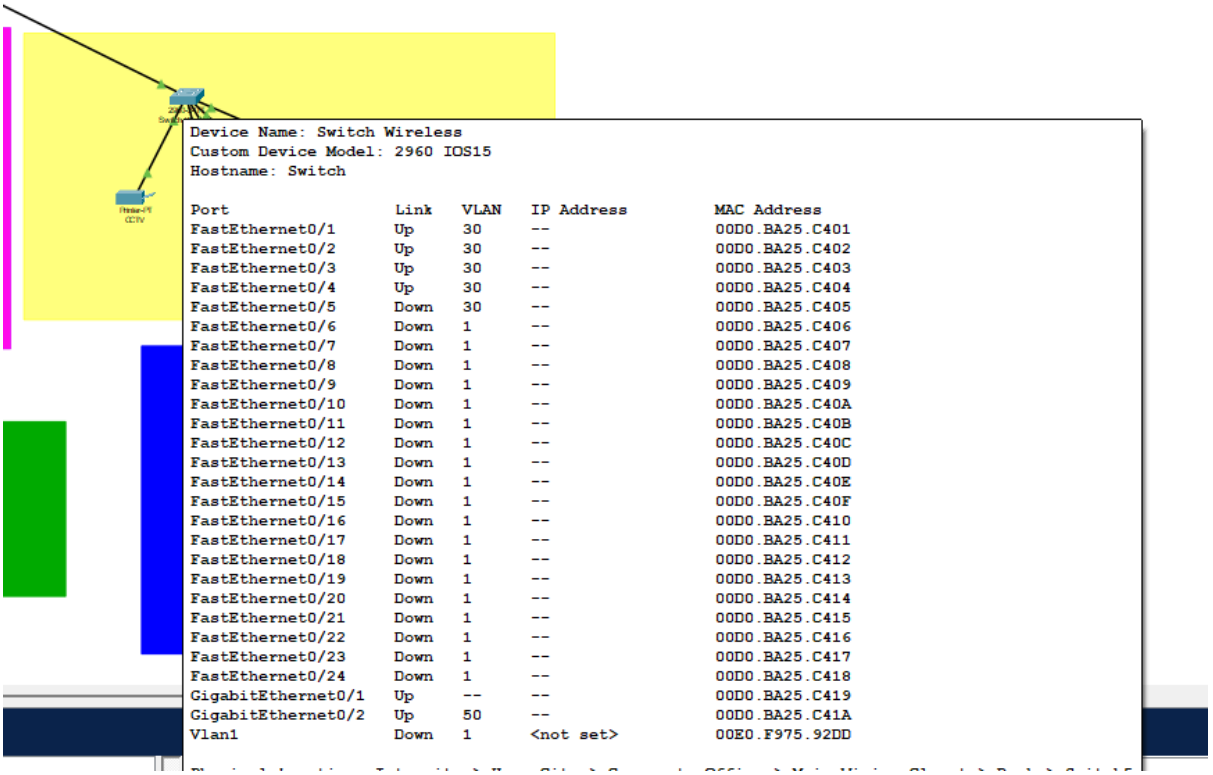
SWITCH ROOM 2



```
Device Name: Switch Room 2
Custom Device Model: 2960 IOS15
Hostname: Switch

Port                Link   VLAN   IP Address         MAC Address
FastEthernet0/1     Up     20     --                 0010.11BB.1501
FastEthernet0/2     Up     20     --                 0010.11BB.1502
FastEthernet0/3     Up     20     --                 0010.11BB.1503
FastEthernet0/4     Up     20     --                 0010.11BB.1504
FastEthernet0/5     Up     20     --                 0010.11BB.1505
FastEthernet0/6     Down   1      --                 0010.11BB.1506
FastEthernet0/7     Down   1      --                 0010.11BB.1507
FastEthernet0/8     Down   1      --                 0010.11BB.1508
FastEthernet0/9     Down   1      --                 0010.11BB.1509
FastEthernet0/10    Down   1      --                 0010.11BB.150A
FastEthernet0/11    Down   1      --                 0010.11BB.150B
FastEthernet0/12    Down   1      --                 0010.11BB.150C
FastEthernet0/13    Down   1      --                 0010.11BB.150D
FastEthernet0/14    Down   1      --                 0010.11BB.150E
FastEthernet0/15    Down   1      --                 0010.11BB.150F
FastEthernet0/16    Down   1      --                 0010.11BB.1510
FastEthernet0/17    Down   1      --                 0010.11BB.1511
FastEthernet0/18    Down   1      --                 0010.11BB.1512
FastEthernet0/19    Down   1      --                 0010.11BB.1513
FastEthernet0/20    Down   1      --                 0010.11BB.1514
FastEthernet0/21    Down   1      --                 0010.11BB.1515
FastEthernet0/22    Down   1      --                 0010.11BB.1516
FastEthernet0/23    Down   1      --                 0010.11BB.1517
FastEthernet0/24    Down   1      --                 0010.11BB.1518
GigabitEthernet0/1  Up     --     --                 0010.11BB.1519
GigabitEthernet0/2  Up     50     --                 0010.11BB.151A
Vlan1               Down   1      <not set>          00D0.5823.5EC6
```

Port eth 1 vlan access 20 PC GURU
Port eth 2 vlan access 20 PC GURU
Port eth 3 vlan access 20 PC GURU
Port eth 4 vlan access 20 PC GURU
Port eth 5 vlan access 20 PC GURU
Port gig0/1 trunk to Sw utama Vlan 20 and 50
Port gig0/2 vlan access 50 NVR

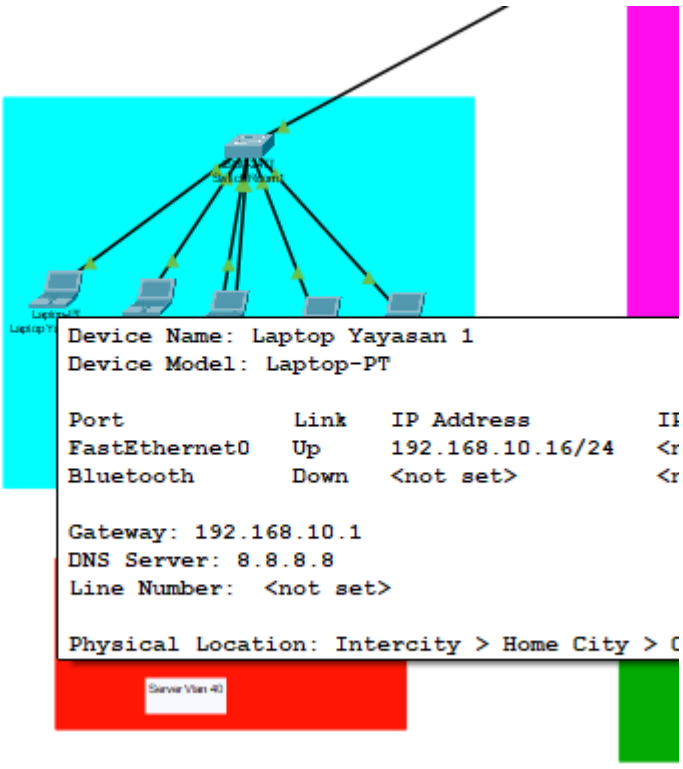
SWITCH CCTV



```
Device Name: Switch Wireless
Custom Device Model: 2960 IOS15
Hostname: Switch

Port                Link   VLAN   IP Address         MAC Address
FastEthernet0/1     Up     30     --                 00D0.BA25.C401
FastEthernet0/2     Up     30     --                 00D0.BA25.C402
FastEthernet0/3     Up     30     --                 00D0.BA25.C403
FastEthernet0/4     Up     30     --                 00D0.BA25.C404
FastEthernet0/5     Down   30     --                 00D0.BA25.C405
FastEthernet0/6     Down   1      --                 00D0.BA25.C406
FastEthernet0/7     Down   1      --                 00D0.BA25.C407
FastEthernet0/8     Down   1      --                 00D0.BA25.C408
FastEthernet0/9     Down   1      --                 00D0.BA25.C409
FastEthernet0/10    Down   1      --                 00D0.BA25.C40A
FastEthernet0/11    Down   1      --                 00D0.BA25.C40B
FastEthernet0/12    Down   1      --                 00D0.BA25.C40C
FastEthernet0/13    Down   1      --                 00D0.BA25.C40D
FastEthernet0/14    Down   1      --                 00D0.BA25.C40E
FastEthernet0/15    Down   1      --                 00D0.BA25.C40F
FastEthernet0/16    Down   1      --                 00D0.BA25.C410
FastEthernet0/17    Down   1      --                 00D0.BA25.C411
FastEthernet0/18    Down   1      --                 00D0.BA25.C412
FastEthernet0/19    Down   1      --                 00D0.BA25.C413
FastEthernet0/20    Down   1      --                 00D0.BA25.C414
FastEthernet0/21    Down   1      --                 00D0.BA25.C415
FastEthernet0/22    Down   1      --                 00D0.BA25.C416
FastEthernet0/23    Down   1      --                 00D0.BA25.C417
FastEthernet0/24    Down   1      --                 00D0.BA25.C418
GigabitEthernet0/1  Up     --     --                 00D0.BA25.C419
GigabitEthernet0/2  Up     50     --                 00D0.BA25.C41A
Vlan1               Down   1      <not set>          00E0.F975.92DD
```

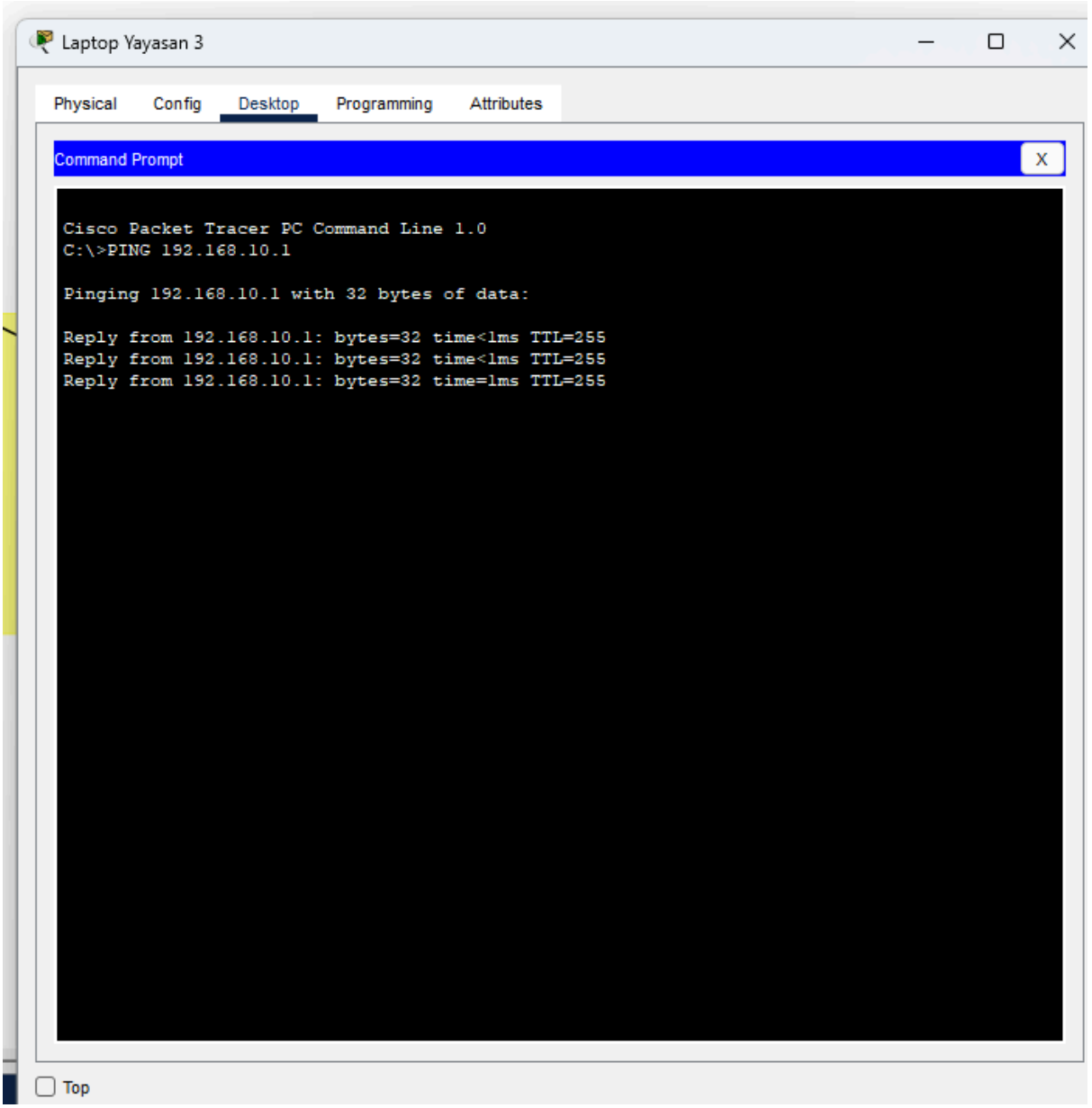
Port eth 1 vlan access 30 CCTV
Port eth 2 vlan access 30 CCTV
Port eth 3 vlan access 30 CCTV
Port eth 4 vlan access 30 CCTV
Port eth 5 vlan access 30 CCTV
Port gig0/1 trunk to Sw utama Vlan 30 and 50
Port gig0/2 vlan access 50 HOSTPOT

DEVICE YAYASAN

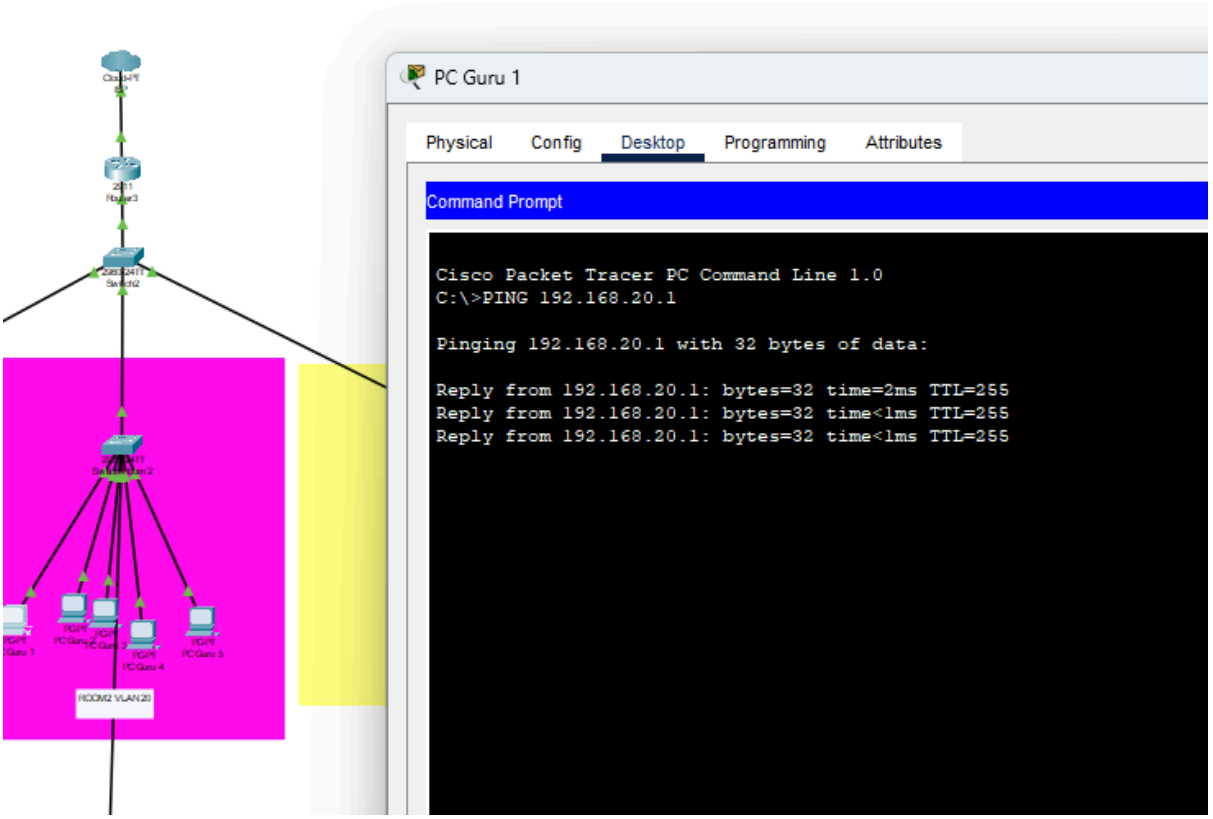


```
Device Name: Laptop Yayasan 1
Device Model: Laptop-PT

Port            Link   IP Address          II
FastEthernet0   Up     192.168.10.16/24    <r
Bluetooth       Down   <not set>           <r

Gateway: 192.168.10.1
DNS Server: 8.8.8.8
Line Number:  <not set>

Physical Location: Intercity > Home City > C
```

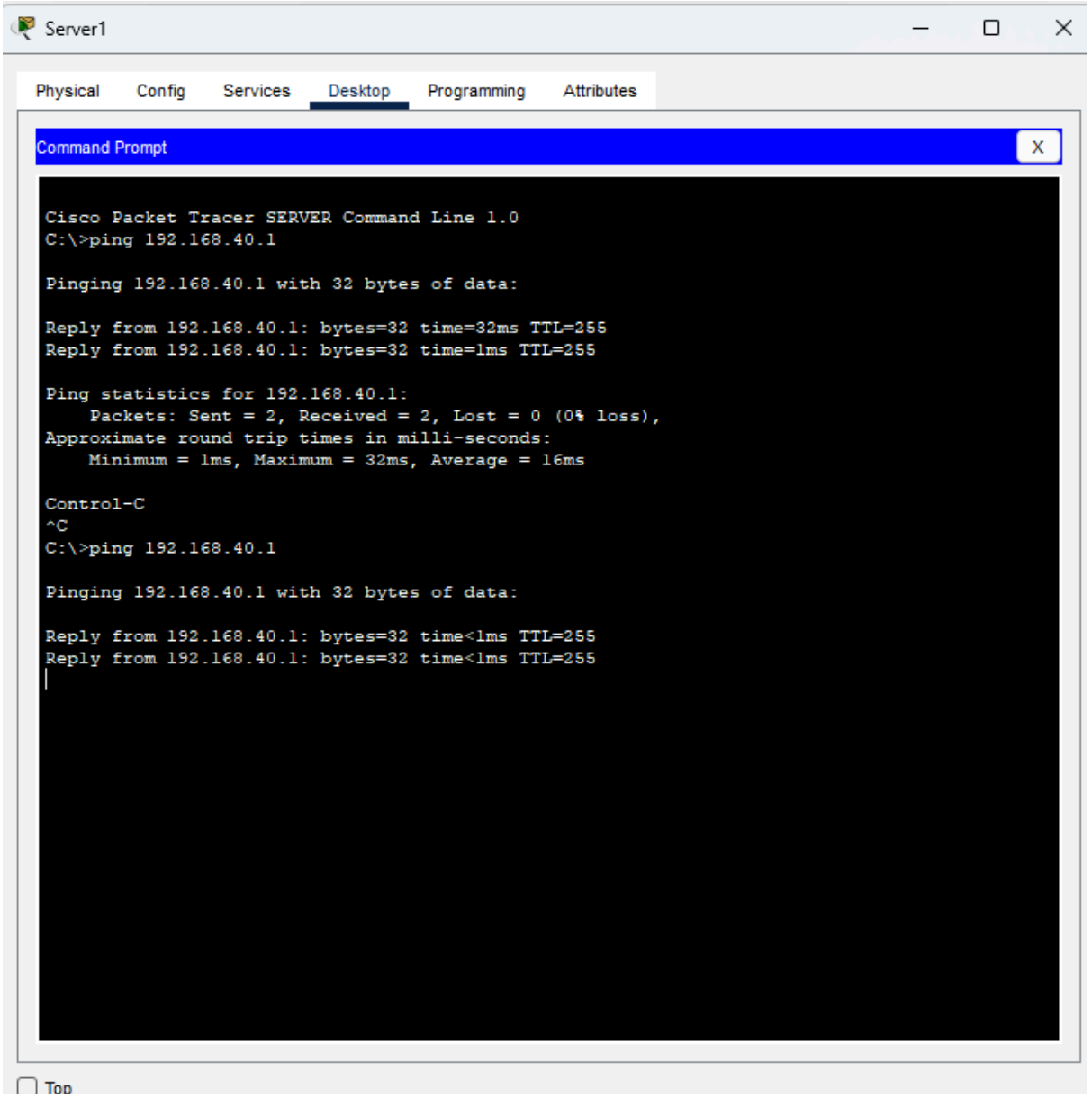
TEST PING ANTAR YAYASAN



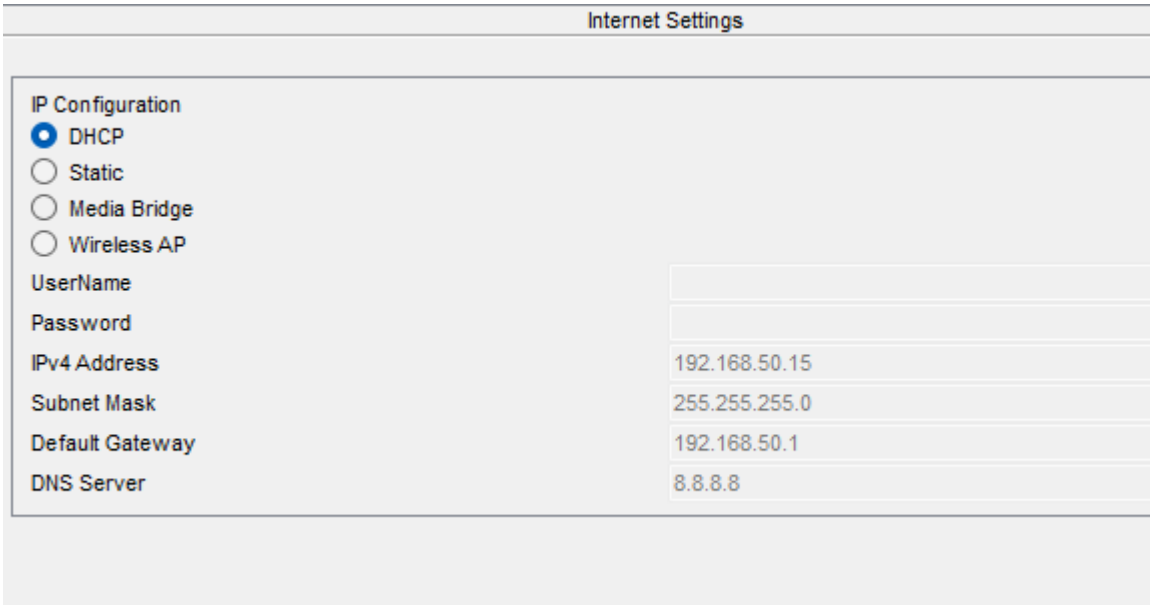
Tes ping pc Guru



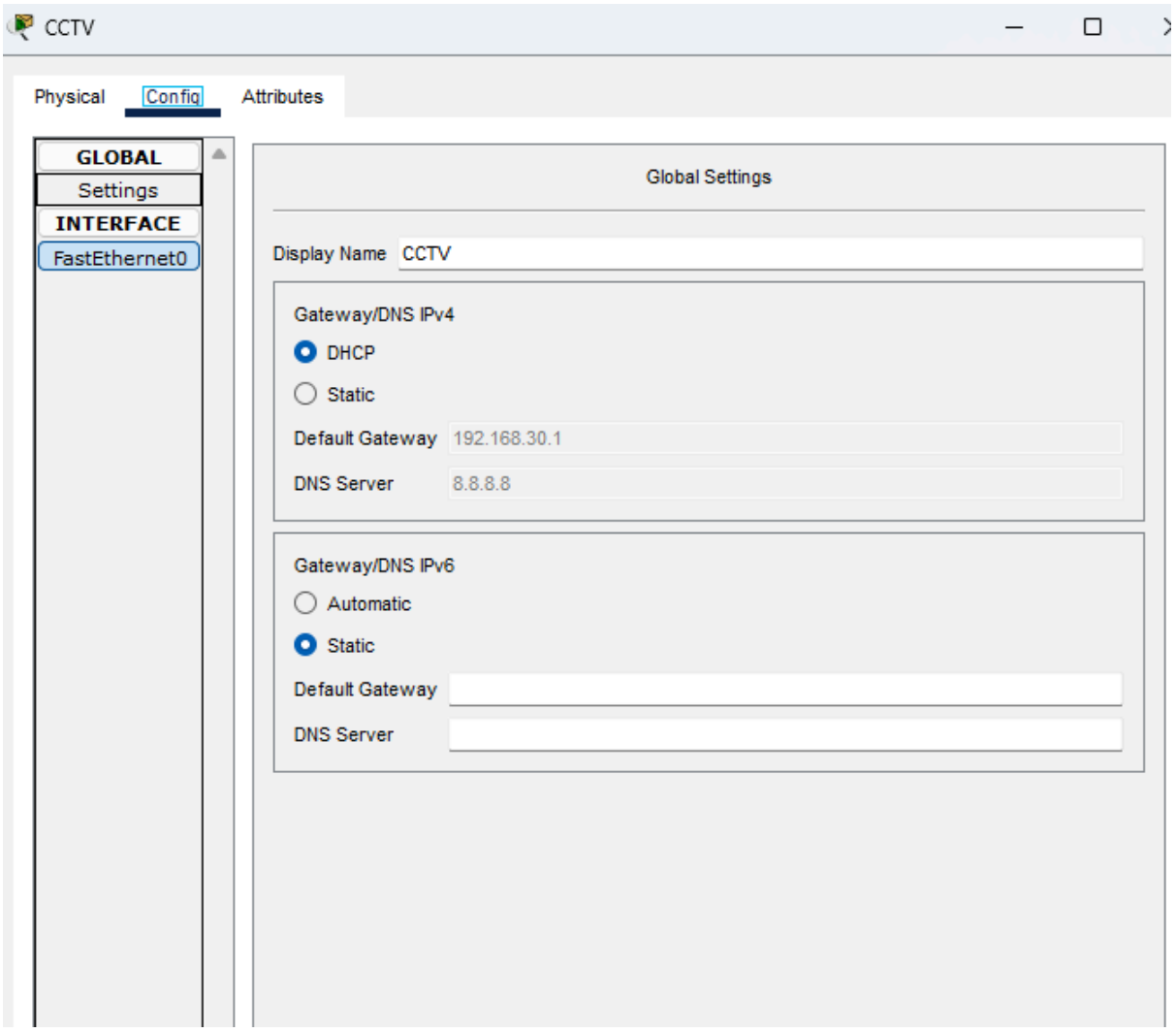
TEST PING SERVER



IP NVR CONTOH DARI VLAN 50

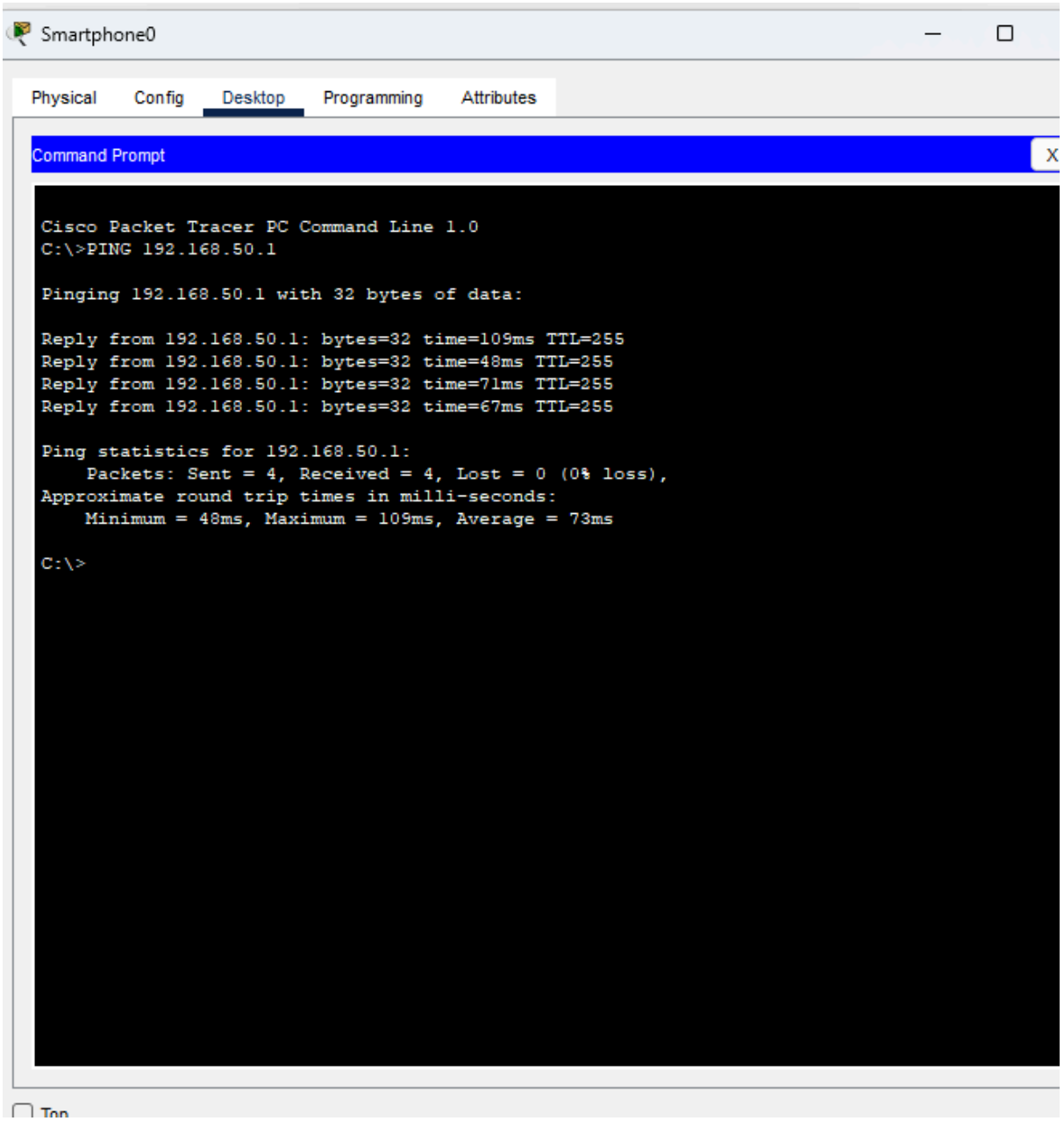


IP CCTV DARI VLAN 30

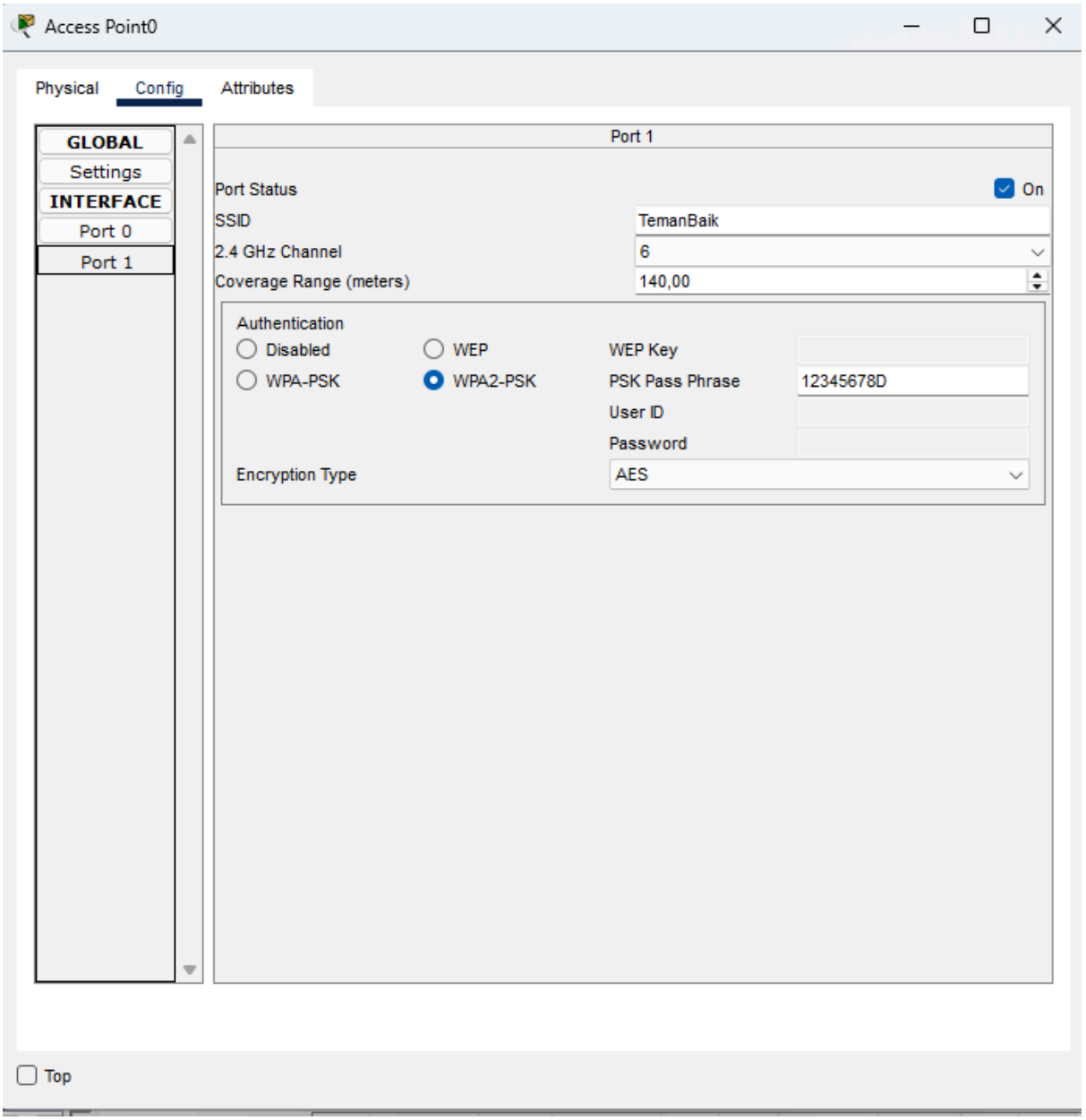


Contoh saja

TEST PING HOSTPOT USER HANDPONE MEMAKAI WIRELES



SETTING ACCESS POINT


Access Point0
Physical
Config
Attributes
GLOBAL
Settings
INTERFACE
Port 0
Port 1
Port 1
Port Status
On
SSID
TemanBaik
2.4 GHz Channel
6
Coverage Range (meters)
140,00
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WEP Key
PSK Pass Phrase
12345678D
User ID
Password
Encryption Type
AES
Top