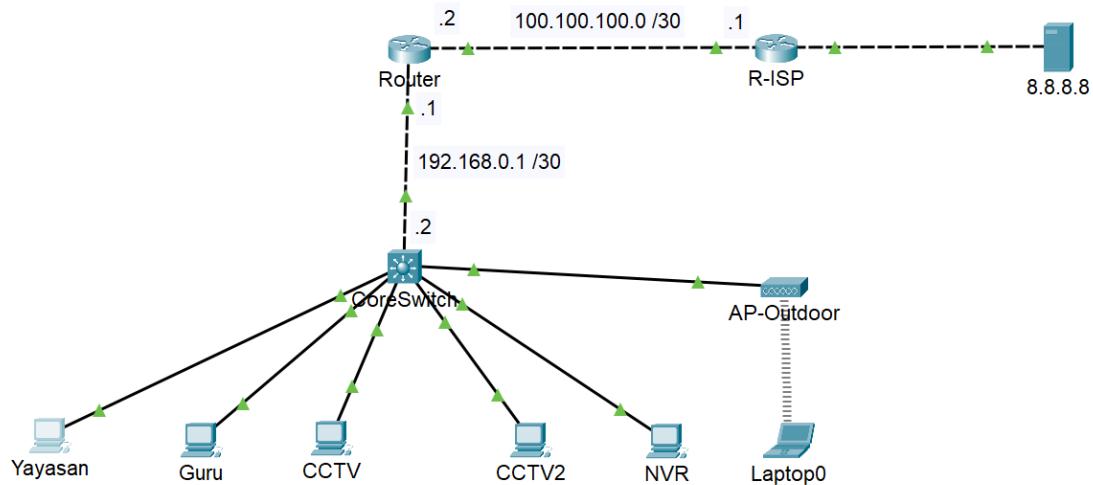


Nama: Wahyu
NIM: 20220801523
Github: https://github.com/wahyuedu/Jaringan_Mobile.git

Topology



1. Config Router

1.1. Configure IP to Router ISP

```
interface GigabitEthernet0/0/0
  ip address 100.100.100.2 255.255.255.252
  ip nat outside
  duplex auto
  speed auto
!
```

1.2. Configure Default Route to Router ISP

```
ip route 0.0.0.0 0.0.0.0 100.100.100.1
```

1.3. Configure NAT and Access-List on Router

```
access-list 10 permit 192.168.0.0 0.0.255.255
ip nat pool INET 100.100.100.2 100.100.100.2 netmask 255.255.255.255
ip nat inside source list 10 pool INET overload
```

Nama: Wahyu

NIM: 20220801523

Github: https://github.com/wahyuedu/Jaringan_Mobile.git

1.4. Configure IP to Core Switch

```
interface GigabitEthernet0/0/1
    ip address 192.168.0.1 255.255.255.252
    ip nat inside
    duplex auto
    speed auto
!
```

1.5. Configure Routing to Core Switch

```
ip route 192.168.10.0 255.255.255.0 192.168.0.2
ip route 192.168.20.0 255.255.255.0 192.168.0.2
ip route 192.168.30.0 255.255.255.0 192.168.0.2
ip route 192.168.40.0 255.255.255.0 192.168.0.2
ip route 192.168.50.0 255.255.255.0 192.168.0.2
!
```

Nama: Wahyu
NIM: 20220801523
Github: https://github.com/wahyuedu/Jaringan_Mobile.git

2. Config Core Switch

2.1. Configure IP to Router

```
interface GigabitEthernet1/0/24
no switchport
ip address 192.168.0.2 255.255.255.252
duplex auto
speed auto
!
```

2.2. Configure Default Route to Router

```
ip route 0.0.0.0 0.0.0.0 192.168.0.1
!
```

2.3. Command IP Routing pada Core Switch, agar Switch menjadi Layer 3 Switch

```
ip routing
!
```

2.4. Create VLANs (10, 20, 30, 40, 50)

VLAN	Name	Status	Ports
1	default	active	Po1, Po2, Gig1/0/7, Gig1/0/8 Gig1/0/9, Gig1/0/10, Gig1/0/11,
	Gig1/0/12		Gig1/0/13, Gig1/0/14, Gig1/0/15,
	Gig1/0/16		Gig1/0/17, Gig1/0/18, Gig1/0/19,
	Gig1/0/20		Gig1/0/21, Gig1/0/22, Gig1/0/23,
	Gig1/1/1		Gig1/1/2, Gig1/1/3, Gig1/1/4
10	Yayasan	active	Gig1/0/1
20	Guru	active	Gig1/0/2
30	CCTV	active	Gig1/0/3
40	CCTV2	active	Gig1/0/4
50	NVR&Hotspot	active	Gig1/0/5, Gig1/0/6
1002	fdci-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

Nama: Wahyu

NIM: 20220801523

Github: https://github.com/wahyuedu/Jaringan_Mobile.git

2.5. Create Interface Vlan dan Tambahkan IP pada masing-masing Vlan.

```
interface Vlan10
  mac-address 000c.cf5e.1901
  ip address 192.168.10.1 255.255.255.0
!
interface Vlan20
  mac-address 000c.cf5e.1902
  ip address 192.168.20.1 255.255.255.0
!
interface Vlan30
  mac-address 000c.cf5e.1903
  ip address 192.168.30.1 255.255.255.0
!
interface Vlan40
  mac-address 000c.cf5e.1904
  ip address 192.168.40.1 255.255.255.0
!
interface Vlan50
  mac-address 000c.cf5e.1905
  ip address 192.168.50.1 255.255.255.0
!
```

2.6. Create DHCP server pada Core Switch

```
ip dhcp pool Yayasan
  network 192.168.10.0 255.255.255.0
  default-router 192.168.10.1
ip dhcp pool Guru
  network 192.168.20.0 255.255.255.0
  default-router 192.168.20.1
ip dhcp pool CCTV
  network 192.168.30.0 255.255.255.0
  default-router 192.168.30.1
ip dhcp pool CCTV2
  network 192.168.40.0 255.255.255.0
  default-router 192.168.40.1
ip dhcp pool NVR&Hotspot
  network 192.168.50.0 255.255.255.0
  default-router 192.168.50.1
!
```

Nama: Wahyu
NIM: 20220801523
Github: https://github.com/wahyuedu/Jaringan_Mobile.git

3. Hasil Test to Internet

3.1. Hasil Test Yayasan to Internet

 Yayasan

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

3.2. Hasil Test Guru to Internet

 Guru

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

3.3. Hasil Test CCTV to Internet

 CCTV

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Nama: Wahyu

NIM: 20220801523

Github: https://github.com/wahyuedu/Jaringan_Mobile.git

3.4. Hasil Test CCTV2 to Internet



CCTV2

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:>
```

3.5. Hasil Test NVR to Internet



NVR

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time=1ms TTL=125
Reply from 8.8.8.8: bytes=32 time<1ms TTL=125
Reply from 8.8.8.8: bytes=32 time<1ms TTL=125
Reply from 8.8.8.8: bytes=32 time<1ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:>|
```

3.6. Hasil Test Hotspot to Internet



Laptop0

```
Cisco Packet Tracer PC Command Line 1.0
C:>
ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time=22ms TTL=125
Reply from 8.8.8.8: bytes=32 time=20ms TTL=125
Reply from 8.8.8.8: bytes=32 time=24ms TTL=125
Reply from 8.8.8.8: bytes=32 time=28ms TTL=125

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 20ms, Maximum = 28ms, Average = 23ms

C:>
```