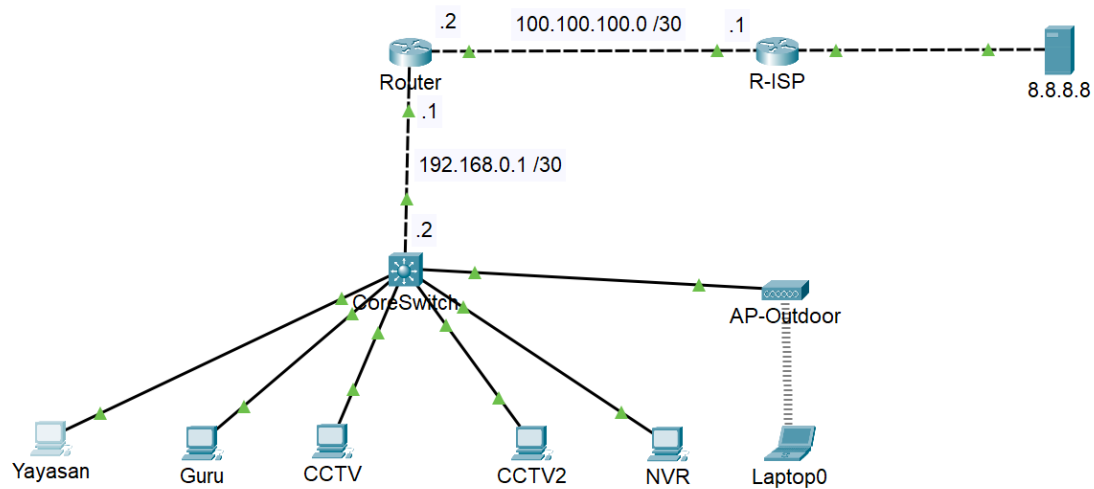


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Github: https://github.com/wahyuedu/Jaringan_Mobile.git

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 dan Access-List pada 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
```

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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
!
```

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	Pol, Po2, Gig1/0/7, Gig1/0/8 Gig1/0/9, Gig1/0/10, Gig1/0/11, 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	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

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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
!
```

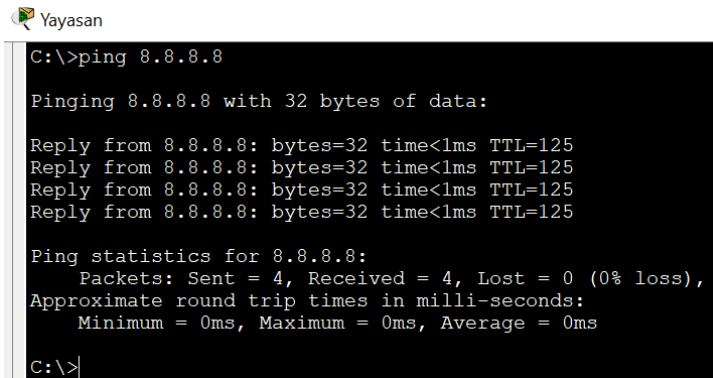
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3. Hasil Test to Internet

3.1. Hasil Test Yayasan to Internet



```
C:\>ping 8.8.8.8

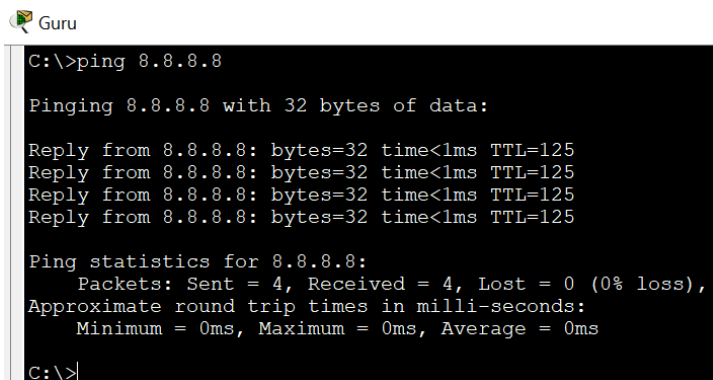
Pinging 8.8.8.8 with 32 bytes of data:

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 = 0ms, Average = 0ms

C:\>|
```

3.2. Hasil Test Guru to Internet



```
C:\>ping 8.8.8.8

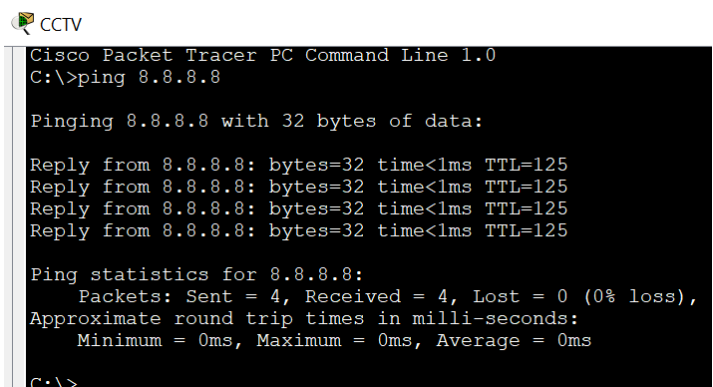
Pinging 8.8.8.8 with 32 bytes of data:

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 = 0ms, Average = 0ms

C:\>|
```

3.3. Hasil Test CCTV to Internet



```
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 = 0ms, Average = 0ms

C:\>
```

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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
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 = 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:\>
```