NAMA : ADES FITRIYA KHARISMA

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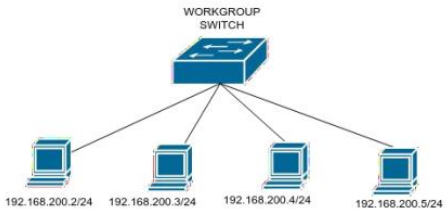
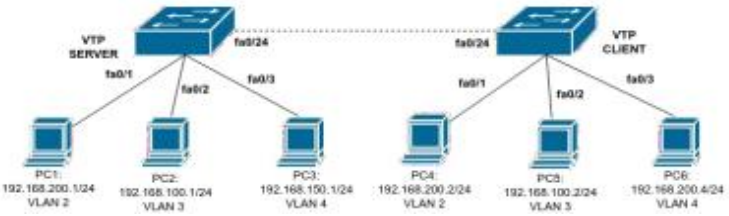
KELAS :MI3A

# LAPORAN PRATIKUM JARINGAN KOMPUTER



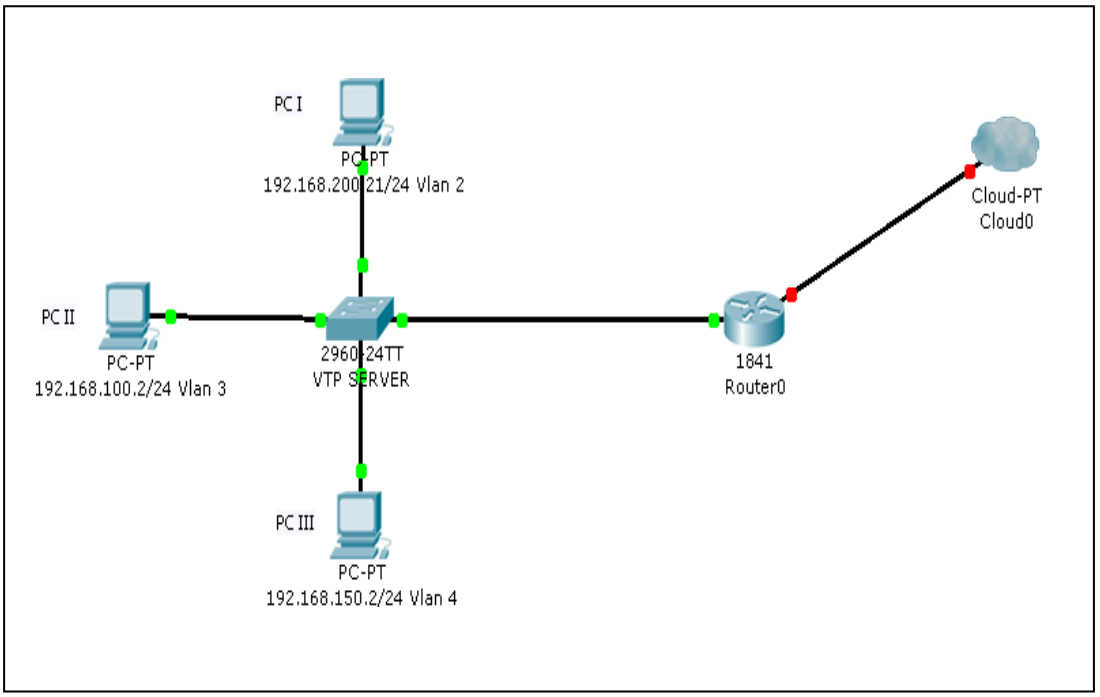

```
%SYS-5-CONFIG_I: Configured from console by console


?Bad filename
%Error parsing filename (Bad file number)
Switch#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Switch#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/5, Fa0/6, Fa0/7, Fa0/8
                                                Fa0/9, Fa0/10, Fa0/11, Fa0/12
                                                Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                Fa0/17, Fa0/18, Fa0/19, Fa0/20
                                                Fa0/21, Fa0/22, Fa0/23, Fa0/24
                                                Gig0/1, Gig0/2
2    Humas                            active    Fa0/1
3    keuangan                         active    Fa0/2
4    it                               active    Fa0/3
5    pimpinan                         active    Fa0/4
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
2    enet  100002     1500  -      -      -        -    -        0      0
 --More--
```




```
09010282327023-VTP-SERVER#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
09010282327023-VTP-SERVER#show vtp status
VTP Version capable             : 1 to 2
VTP version running             : 2
VTP Domain Name                 : jarkom.ilkom.unsri.ac.id
VTP Pruning Mode                : Disabled
VTP Traps Generation            : Disabled
Device ID                       : 0040.0B68.0300
Configuration last modified by 0.0.0.0 at 3-1-93 00:22:55
Local updater ID is 0.0.0.0 (no valid interface found)

Feature VLAN :
--------------
VTP Operating Mode              : Server
Maximum VLANs supported locally : 255
Number of existing VLANs        : 8
Configuration Revision          : 0
MD5 digest                      : 0x84 0xAE 0xF5 0xC3 0x38 0x06 0x72 0xD5
                                  0xB4 0xFA 0x62 0x3F 0xAF 0x41 0xE7 0x6B
```

```
09010282327023-VTP_CLIENT#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
09010282327023-VTP_CLIENT#show vtp status
VTP Version capable             : 1 to 2
VTP version running             : 2
VTP Domain Name                 : jarkom.ilkom.unsri.ac.id
VTP Pruning Mode                : Disabled
VTP Traps Generation            : Disabled
Device ID                       : 0007.EC1D.C300
Configuration last modified by 0.0.0.0 at 3-1-93 00:44:51

Feature VLAN :
--------------
VTP Operating Mode              : Client
Maximum VLANs supported locally : 255
Number of existing VLANs        : 8
Configuration Revision          : 0
MD5 digest                      : 0x5E 0x66 0xCC 0xC8 0x0B 0x4B 0xF8 0xEA
                                  0x7C 0x02 0x23 0x08 0x48 0xBB 0x1F 0xFD

09010282327023-VTP_CLIENT#
```

# A. PERCOBAAN




**Gambar 5.1** Topologi percobaan NAT

1. Konfigurasi Switch

**Memberi nama SWITCH_DISTRIBUSI**

```
SWITCH_DISTRIBUSI#configure terminal
SWITCH_DISTRIBUSI(config)Hostname SWITCH_DISTRIBUSI_DISTRIBUSI
```

**Membuat Banner**

```
SWITCH_DISTRIBUSI(config)#banner motd  #Selamat Datang di
SWITCH_DISTRIBUSI #
```

**Membuat Password**

```
SWITCH_DISTRIBUSI(config)#line console 0
SWITCH_DISTRIBUSI(config-line)#password cisco
SWITCH_DISTRIBUSI(config-line)#login
SWITCH_DISTRIBUSI(config-line)#exit
```

**Mensetting U/ Telnet**

```
SWITCH_DISTRIBUSI(config)#line vty 0 4
SWITCH_DISTRIBUSI(config-line)#password cisco
SWITCH_DISTRIBUSI(config-line)#login
SWITCH_DISTRIBUSI(config-line)#exit

SWITCH_DISTRIBUSI(config)#enable password cisco
SWITCH_DISTRIBUSI(config)#enable secret cisco
```

**Setting Vlan**

```
SWITCH_DISTRIBUSI(config)#Vlan 2
SWITCH_DISTRIBUSI(config -vlan)#Name Humas
SWITCH_DISTRIBUSI(config -vlan)#exit

SWITCH_DISTRIBUSI(config)#Vlan 3
SWITCH_DISTRIBUSI(config -vlan)#Name Keuangan
SWITCH_DISTRIBUSI(config -vlan)#exit
```

```
SWITCH_DISTRIBUSI(config)#Vlan 4
SWITCH_DISTRIBUSI(config-vlan)#Name IT
SWITCH_DISTRIBUSI(config-vlan)#exit
```

**Setting Member port untuk Tiap Vlan**

```
SWITCH_DISTRIBUSI(config)#interface fastEthernet 0/1
SWITCH_DISTRIBUSI(config-if)# switchport mode access
SWITCH_DISTRIBUSI(config-if)# switchport access vlan 2
SWITCH_DISTRIBUSI(config-if)#exit

SWITCH_DISTRIBUSI(config)#interface fastEthernet 0/2
SWITCH_DISTRIBUSI(config-if)# switchport mode access
SWITCH_DISTRIBUSI(config-if)# switchport access vlan 3
SWITCH_DISTRIBUSI(config-if)#exit

SWITCH_DISTRIBUSI(config)#interface fastEthernet 0/3
SWITCH_DISTRIBUSI(config-if)# switchport mode access
SWITCH_DISTRIBUSI(config-if)# switchport access vlan 4
SWITCH_DISTRIBUSI(config-if)#exit
```

**Setting Port Trunk**

```
SWITCH_DISTRIBUSI(config)# interface fastEthernet 0/24
SWITCH_DISTRIBUSI(config-if)# switchport mode trunk
SWITCH_DISTRIBUSI(config-if)# exit
SWITCH_DISTRIBUSI(config)# exit

SWITCH_DISTRIBUSI#copy run start --- untuk menyimpan konfigurasi di
NVRAM
```

**Melihat Daftar Vlan**

```
SWITCH_DISTRIBUSI#show vlan
Tulis hasil yang anda dapat
```

| VLAN | Name | Status | Port |
|---|---|---|---|
| 1 | Default | active | Fa0/4, Fa0/5, Fa0/6, Fa0/7, Fa0/8, Fa0/9, Fa0/10, Fa0/11, Fa0/12, Fa0/13, Fa0/14, Fa0/15, Fa0/16, Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22, Fa0/23, Fa0/24, Gig0/1, Gig0/2 |
| 2 | Humas | active | Fa0/1 |
| 3 | Keuangan | active | Fa0/2 |
| 4 | It | active | Fa0/3 |
| 1002 | Fddie-default | active | - |

2. Konfigurasi Route

**Memberi nama Router**

```
Router#configure terminal
Router(config)Hostname ROUTER_I
```

**Membuat Banner**

```
ROUTER_I (config)#banner motd  #Selamat Datang di Router I#
```

**Membuat Password**

```
ROUTER_I (config)#line console 0
ROUTER_I (config-line)#password cisco
ROUTER_I (config-line)#login
ROUTER_I (config-line)#exit
ROUTER_I (config)#enable password cisco
ROUTER_I (config)#enable secret cisco
```

**Mensetting U/ Telnet**

```
ROUTER_I (config)#line vty 0 4
ROUTER_I (config-line)#password cisco
ROUTER_I (config-line)#login
ROUTER_I (config-line)#exit
```

**Setting IP WAN di Interface 0/1 (IP Publik)**

```
ROUTER_I #configure terminal
ROUTER_I (config)#interface fastEthernet 0/0
ROUTER_I (config-if)#ip address 10.100.112.10 255.255.255.0
ROUTER_I (config-if)#ip nat inside
ROUTER_I (config-if)#no shutdown
ROUTER_I(config-if)#exit
```

**Setting IP di Interface 0/1**

```
ROUTER_I #configure terminal
ROUTER_I (config)#interface fastEthernet 0/1
ROUTER_I (config-if)#no ip address
ROUTER_I (config-if)#no shutdown
ROUTER_I(config-if)#exit
```

**Setting Intervlan Routing**

```
ROUTER_I (config)#interface fastEthernet 0/1.1
ROUTER_I (config-subif)#encapsulation dot1Q 2
ROUTER_I (config-subif)#ip address 192.168.200.1 255.255.255.0
ROUTER_I (config-subif)#ip nat outside
ROUTER_I (config-subif)#exit
ROUTER_I (config)#interface fastEthernet 0/1.2
ROUTER_I (config-subif)#ip address 192.168.100.1 255.255.255.0
ROUTER_I (config-subif)#encapsulation dot1Q 3
ROUTER_I (config-subif)#ip nat outside
ROUTER_I (config-subif)#exit
ROUTER_I (config)#interface fastEthernet 0/1.3
ROUTER_I (config-subif)#encapsulation dot1Q 4
ROUTER_I (config-subif)#ip address 192.168.150.1 255.255.255.0
ROUTER_I (config-subif)#ip nat outside
```

**DHCP untuk Vlan 2**

```
ROUTER_I (config)#ip dhcp excluded 192.168.200.2 192.168.200.20 (range
ip yang tidak termasuk dhcp)
ROUTER_I (config)#ip dhcp pool 192.168.200.0/24
ROUTER_I (dhcp-config)#network 192.168.200.0 255.255.255.0
ROUTER_I (dhcp-config)#default-router 192.168.200.1
ROUTER_I (dhcp-config)#dns-server 222.124.194.11
ROUTER_I (dhcp-config)#end
```

**DHCP untuk Vlan 3**

```
ROUTER_I (config)#ip dhcp excluded 192.168.100.2 192.168.100.20 (range
ip yang tidak termasuk dhcp)
ROUTER_I (config)#ip dhcp pool 192.168.100.0/24
ROUTER_I (dhcp-config)#network 192.168.100.0 255.255.255.0
ROUTER_I (dhcp-config)#default-router 192.168.100.1
ROUTER_I (dhcp-config)#dns-server 222.124.194.11
ROUTER_I (dhcp-config)#end
```

**DHCP untuk Vlan 4**

```
ROUTER_I (config)#ip dhcp excluded 192.168.150.2 192.168.150.20 (range
ip yang tidak termasuk dhcp)
ROUTER_I (config)#ip dhcp pool 192.168.150.0/24
ROUTER_I (dhcp-config)#network 192.168.150.0 255.255.255.0
ROUTER_I (dhcp-config)#default-router 192.168.150.1
ROUTER_I (dhcp-config)#dns-server 222.124.194.11
ROUTER_I (dhcp-config)#exit
ROUTER_I (config)#exit
```

**Setting NAT**

```
ROUTER_I (config)#ip nat pool konek 10.100.121.10 10.100.121.10 netmask
255.255.255.0
ROUTER_I (config)#access-list 99 permit 192.168.200.0 0.0.0.255
ROUTER_I (config)#access-list 99 permit 192.168.100.0 0.0.0.255
ROUTER_I (config)#access-list 99 permit 192.168.150.0 0.0.0.255
ROUTER_I (config)#ip nat inside source list 99 pool konek overload
```

**Routing**

```
ROUTER_I (config)#IP Router 0.0.0.0 0.0.0.0 10.100.121.1
```

**Setting DNSSERVER**

```
ROUTER_I (config)#ip name-server 222.124.194.11
ROUTER_I (config)#ip name-server 222.124.194.18
ROUTER_I (config)#ip domain-name unsri.ac.id
Router#copy run start --- untuk menyimpan konfigurasi di NVRAM
```

**Konfigurasi DHCP client**

```
Setting DHCP client pada Windows, pilih :
1. control panel,
2. Network Connection,
3. Local Area Connection,
4. Properties,
5. Internet Protocol (TCP/IP),
6. Properties
7. Pilih Obtain an IP address automatically.
8. Pilih Obtain an DNS address automatically
9. Klik OK
```

**Melihat Daftar IP dari Client**

```
Router#sh ip dhcp binding
```

| No | IP address | MAC Address | Lease Expiration | Type |
|---|---|---|---|---|
| 1 | 192.168.200.21 | 00D0.9799.C132 | 2024-09-30 | Static |
| | | | | |
| 2 | 192.168.100.2 | 000C.CF49.A6E7 | 2024-10-01 | Static |
| | | | | |
| 3 | 192.160.150.2 | 0005.5E5E.66A0 | 2024-09-28 | Static |
| | | | | |

**Daftar IP Client**

| No | Client | IP address | Netmask | Gateway | Dns |
|---|---|---|---|---|---|
| 1 | PCI | 192.168.200.21 | 255.255.255.0 | 192.168.200.1 | 222.124.194.11 |
| | | | | | |
| 2 | PC2 | 192.168.100.2 | 255.255.255.0 | 192.168.100.1 | 222.124.194.11 |
| | | | | | |
| 3 | PC3 | 192.168.150.2 | 255.255.255.0 | 192.168.150.1 | 222.124.194.11 |
| | | | | | |

**Tes Koneksi Ke sebuah website (catat hasil yang anda dapat)**

| No | Sumber | IP Gateway | Hasil | Website | Hasil |
|---|---|---|---|---|---|
| | | | Ya / Tidak | | Ya / Tidak |
| 1 | PCI | 192.168.200.1 | Tidak | www.google.com | Tidak |
| | | | | | |
| 2 | PC2 | 192.168.100.1 | Tidak | www.google.com | Tidak |
| | | | | | |
| 3 | PC3 | 192.168.150.1 | Tidak | www.google.com | Tidak |
| | | | | | |