

TUGAS MANAJEMEN JARINGAN
SIMULASI SNMP PADA PACKET TRACER



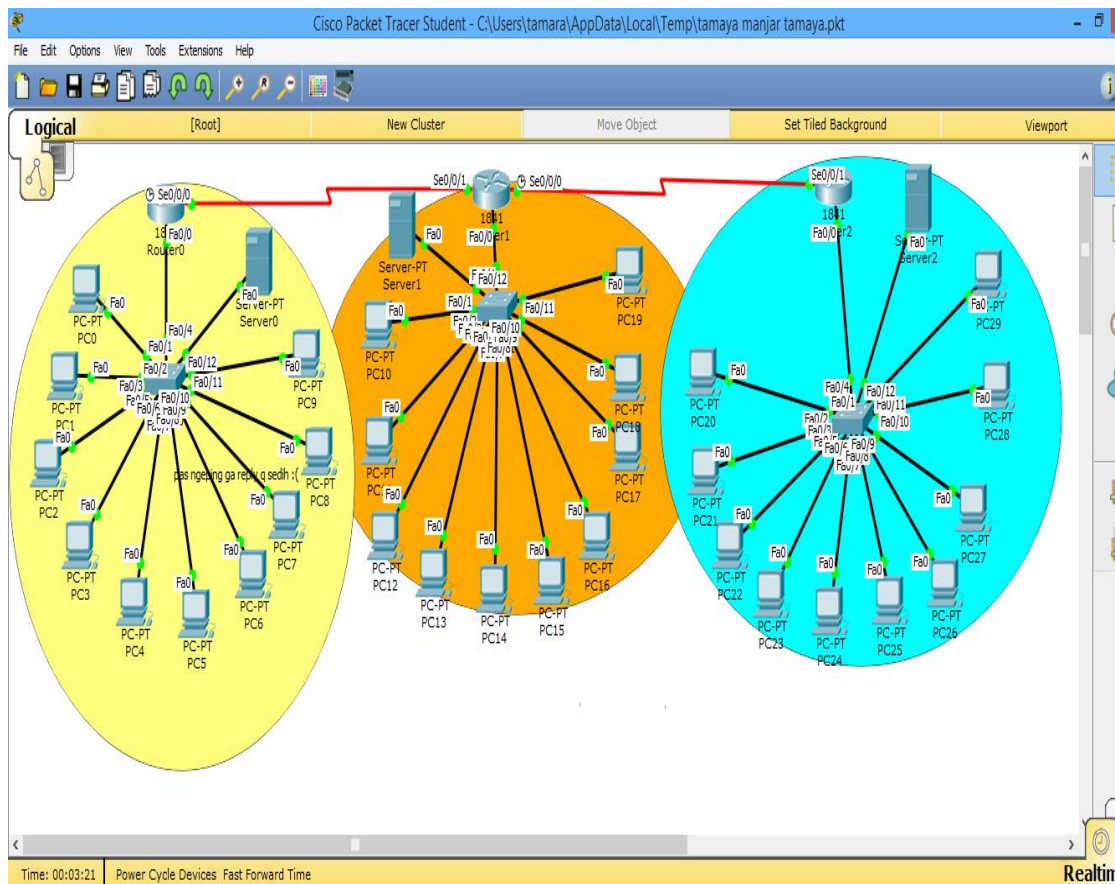
OLEH:

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Topologi Jaringan



Topologi network yang dibuat pada routing ini menggunakan 3 router, 3 server, dan 30 PC

Dapat dilihat pada gambar di atas konfigurasi IP address yang saya gunakan antara lain sebagai berikut:

- Router 1 (10.10.10.1/30)
- Router 2 (10.10.20.1/30)
- Router 3 (10.10.30.1/30)
- Pada PC1 sampai PC10 masing-masing dikonfig dengan ip address (192.168.10.1/24), (192.168.10.2/24), (192.168.10.3/24), (192.168.10.4/24), (192.168.10.5/24), (192.168.10.6/24), (192.168.10.7/24), (192.168.10.8/24), (192.168.10.9/24), (192.168.10.10/24).
- Pada PC11 sampai PC20 masing-masing dikonfig dengan ip address (192.168.20.11/24), (192.168.20.12/24), (192.168.20.13/24), (192.168.20.14/24), (192.168.20.15/24), (192.168.20.16/24), (192.168.20.17/24), (192.168.20.18/24), (192.168.20.19/24), (192.168.20.20/24),
- Pada PC21 sampai PC30 masing-masing dikonfig dengan ip address (192.168.30.21/24), (192.168.30.22/24), (192.168.30.23/24), (192.168.30.24/24), (192.168.30.25/24), (192.168.30.26/24), (192.168.30.27/24), (192.168.30.28/24), (192.168.30.29/24), (192.168.30.30/24),

Kerangka kerja SNMP dapat dibagi 3:

SNMP Manager; aplikasi network management yang berjalan pada PC, dan agent adalah software yang berjalan pada device yang akan dikelola

SNMP Agent; komponen software pada perangkat termanajemen yang mengurus data pada perangkat dan melaporkan data tersebut bila diperlukan ke sistem manajemen

MIB; Management Information base, adalah area penyimpanan informasi virtual untuk informasi manajemen jaringan yang terdiri dari kumpulan obyek yang terkelola

Konfigurasi IP Address Router

```
interface FastEthernet0/0
ip address 10.10.10.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
shutdown
!
interface Serial2/0
ip address 10.10.20.1 255.255.255.252
!
interface Serial3/0
ip address 10.10.30.1 255.255.255.252
```

Konfigurasi SNMP Agent

snmp-server community public RO

snmp-server community private RW Pada perangkat Cisco, untuk mengaktifkan snmp menggunakan perintah **snmp-server community <community string> ro/rw** RO : Read Only menggunakan community string public (atau string apa saja) RW: Read Write menggunakan community string private (atau string apa saja)

IOS Command Line Interface

```
Router(config)#
Router(config)#hostname snmp-server
snmp-server(config)#snmp-server community satish ro
%SNMP-5-WARMSTART: SNMP agent on host snmp-server is undergoing a warm start
snmp-server(config)#snmp-server community tivary rw
snmp-server(config)#~Z
snmp-server#
%SYS-5-CONFIG_I: Configured from console by console
snmp-server#
```

MIB Browser

The screenshot displays the MIB Browser application interface. At the top, there are menu options: [Root], New Cluster, Move Object, Set Tiled Background, and Viewport. The main area shows a network diagram with a central router (Set0/0/0) connected to several PCs (PC3-PC7, PC25-PC29) and a server (Server0). A window titled 'PC18' is open, showing the MIB Browser interface for the address 10.10.20.1 and OID .1.3.6.1.2.1.1.5.0. The 'Result Table' shows the following details:

Name/OID	Value
Name:	.sysName
OID:	.1.3.6.1.2.1.1.5.0
Syntax:	OctetString
Access:	read-write
Description:	An administratively-assig

Below this, a larger window shows the MIB Browser interface for the address 192.168.10.1 and OID .1.3.6.1.2.1.1.5.0. The 'Result Table' shows the following details:

Name/OID	Value	Type
Name:	.sysName	
OID:	.1.3.6.1.2.1.1.5.0	
Syntax:	OctetString	
Access:	read-write	
Description:	An administratively-assig	

The 'Advanced' dialog box is shown, allowing configuration of the SNMP connection. The fields are:

- Address: 192.168.10.1
- Port: 161
- Read Community: ●●
- Write Community: ●●●●
- SNMP Version: v3

Buttons for 'OK' and 'Cancel' are visible at the bottom.

Test SNMP pada router 1

The image shows a Packet Tracer PC Command Line window for PC27. The window title is "Command Prompt" and it contains the following text:

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.20.12

Pinging 192.168.20.12 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.12: bytes=32 time=22ms TTL=125
Reply from 192.168.20.12: bytes=32 time=11ms TTL=125
Reply from 192.168.20.12: bytes=32 time=11ms TTL=125

Ping statistics for 192.168.20.12:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 11ms, Maximum = 22ms, Average = 14ms

PC>
```

Hasil ping PC 27 ke PC 1