**LOMBA KOMPETENSI SISWA**

SEKOLAH MENENGAH KEJURUAN

TINGKAT KABUPATEN WONOSOBO TH 2024

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**IT NETWORK SYSADMIN**

**Soal Modul II CPT**

**SOAL MODUL II**

1. Tujuan Konfigurasi

* Client VLAN dan WLAN bisa mengakses (browsing) Web Server dengan Domain.
* Web Server tidak bisa di ping dari Client VLAN Tamu
* PC Admin tidak bisa diganti dengan perangkat lain

1. Ketentuan-ketentuan
2. IP Address

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Hostname** | **Interface** | **Alamat IP** | | | |
| **Host** | **Network** | **Gateway** | **DNS** |
| Router-Server | Gig0/0 | .3 | 121.101.131.0/29 |  |  |
|  | Gig0/1 | .1 | 121.101.132.0/29 |  |  |
| Router-Pusat | Gig0/0 | .2 | 121.101.132.0/29 |  |  |
|  | Gig0/1 | .1 | 121.101.133.0/29 |  |  |
| Router-Client | Gig0/0 | .2 | 121.101.133.0/29 |  |  |
|  | Gig0/1 | .1 | 125.104.0.0/30 |  |  |
| MLS-Client | Gig1/0/1 | .2 | 125.104.0.0/30 |  |  |
|  | Gig1/0/20 |  |  |  |  |
|  | Gig1/0/21 |  |  |  |  |
|  | Gig1/0/22 |  |  |  |  |
|  | Gig1/0/23 |  |  |  |  |
|  | VLAN10 | .254 | 192.168.10.0/24 |  |  |
|  | VLAN20 | .254 | 192.168.20.0/24 |  |  |
|  | VLAN30 | .254 | 192.168.30.0/24 |  |  |
|  | VLAN100 | .14 | 172.16.6.0/28 |  |  |
|  | VLAN200 | .126 | 172.16.7.0/25 |  |  |
| DNS-Server | Fa0 | .1 | 121.101.131.0/29 | .3 | .2 |
| Web-Server | Fa0 | .2 | 121.101.131.0/29 | .3 | .2 |
| PC-Admin | Fa0 | .1 | 172.16.6.0/28 | .14 | 121.101.131.1 |
| PC-Programer | Fa0 | .2 | 172.17.6.0/28 | .14 | 121.101.131.1 |
| Laptop-Tamu1 | Wir0 | DHCP | 172.16.6.0/28 | .14 | 121.101.131.1 |
| Laptop-Tamu2 | Wir0 | DHCP | 172.16.6.0/28 | .14 | 121.101.131.1 |
| PC-0 | Fa0 | DHCP | 192.168.10.0/24 | .254 | 121.101.131.1 |
| PC-1 | Fa0 | DHCP | 192.168.20.0/24 | .254 | 121.101.131.1 |
| PC-2 | Fa0 | DHCP | 192.168.30.0/24 | .254 | 121.101.131.1 |
| PC-3 | Fa0 | DHCP | 192.168.10.0/24 | .254 | 121.101.131.1 |
| PC-4 | Fa0 | DHCP | 192.168.20.0/24 | .254 | 121.101.131.1 |
| PC-5 | Fa0 | DHCP | 192.168.30.0/24 | .254 | 121.101.131.1 |
| PC-6 | Fa0 | DHCP | 192.168.10.0/24 | .254 | 121.101.131.1 |
| PC-7 | Fa0 | DHCP | 192.168.20.0/24 | .254 | 121.101.131.1 |
| PC-8 | Fa0 | DHCP | 192.168.30.0/24 | .254 | 121.101.131.1 |

Catatan : ubah hostname default dengan hostname yang sesuai dengan tabel di atas.

1. Routing

|  |  |  |
| --- | --- | --- |
| **Protocol** | **Network** | **Keterangan** |
| EIGRP | Seluruh network yang ada | Process ID = 2024 |

1. DHCP Server

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **Nama Pool** | **Jumlah IP** | **DHCP Client** |
| MLS-Client | POOL-VLAN10 | Semua | PC kelompok VLAN 10 |
| MLS-Client | POOL-VLAN20 | Semua | PC kelompok VLAN 20 |
| MLS-Client | POOL-VLAN30 | Semua | PC kelompok VLAN 30 |
| MLS-Client | POOL-Tamu | Semua | Laptop Tamu |

Keterangan excluded address = IP Gateway

1. VLAN

|  |  |  |  |
| --- | --- | --- | --- |
| **Nomor VLAN** | **Nama VLAN** | **VLAN Trunk** | **Native VLAN** |
| 10 | Bendahara | 10,20,30 | 10 |
| 20 | TU | 10,20,30 | 10 |
| 30 | Guru | 10,20,30 | 10 |
| 100 | Lab | 100 | 100 |
| 200 | Tamu | 200 | 100 |

1. WLAN

Device = AP-Tamu

SSID = LKS

WPA2-PSK Key = lkswonosobo2024

1. Web Server

Index.html = LKS SMK TINGKAT KABUPATEN WONOSOBO MATA LOMBA IT/NSA TAHUN 2023

1. DNS Server

Record

|  |  |  |
| --- | --- | --- |
| No | Domain Name | IP Address |
| 1 | [www.lkswonosobo2024.id](http://www.lkswonosobo2024.id) | 121.101.131.2 |

1. ACL
   * Tujuan rule ACL : Client Laptop-Tamu tidak bisa ping ke Web Server.
   * Nomer ACL : 100
   * Device : Router-Dinprop
2. Pengujian

Semua PC client VLAN dan Laptop client WLAN dapat mengakses konten web server ([www.lkswonosobo2024.id](http://www.lkswonosobo2024.id)) dengan menggunakan web browser

1. Ketentuan lain yang dianggap kurang jelas dapat ditanyakan kepada Dewan Juri.

SELAMAT MENGERJAKAN SEMOGA SUKSES

