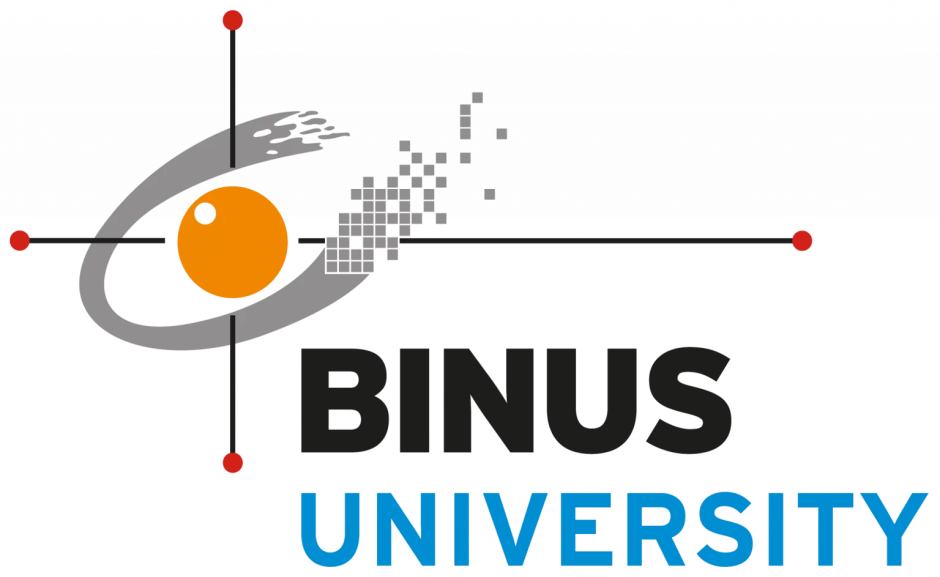
CONFIGURASI INTER VLAN

MODUL PROYEK AKHIR COMPUTER NETWORK

MATA KULIAH CPEN6250004 - Computer Networks

KELAS BC20



Oleh : Kelompok 1

2602160750 - BRYAN ORVILLE AUDRIC

(Membuat rancangan awal dan Menyusun modul)

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(Membuat video konfigurasi)

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Semester Ganjil, 2023/2024 MALANG

1. **Study Case**

Perusahaan XYZ telah menambahkan Departemen F ke dalam strukturnya, menjadikan total departemennya menjadi enam, yang beroperasi di tujuh kota berbeda: Malang, Jakarta, Yogyakarta, Semarang, Bandung, Bali, dan Palembang. Di Malang, kini terdapat semua enam departemen (A, B, C, D, E, dan F), Jakarta menampung B, C, D, E, dan F; Yogyakarta memiliki A, C, D, dan F; Semarang dengan B, D, E, dan F; Bandung menyediakan A, C, D, E, dan F; Bali dengan A, C, E, dan F; dan Palembang menampung A, E, dan F. Kebutuhan host kini telah dIPerbarui: A membutuhkan 50 host, B 20 host, C 29 host, D 34 host, E 41 host, dan departemen baru F membutuhkan 35 host. Dengan penambahan departemen baru ini, jaringan XYZ masih menggunakan kelas C untuk intranet dan kelas A untuk koneksi antar router, dengan teknik VLAN yang diterapkan untuk memastikan efisiensi dan keamanan yang lebih baik dalam jaringan yang semakin kompleks.

Untuk rancangan jaringan, kami menggunakan 6 VLAN, 7 router, 38 switch, 1 server dan 62 total pc yang ditempatkan pada rancangan (2 pc untuk merepresentasikan setiap departement pada setiap kota). Untuk switch, kami menggunakan switch 2960-24TT, kemudian untuk menghubungkan router dengan router lain, kami menggunakan kabel serial DTE, untuk menghubungkan router ke switch, kami menggunakan kabel copper straight-through. Selanjutnya, untuk menghubungkan switch dengan switch yang lain, kami menggunakan kabel copper cross-over, sedangkan, untuk menghubungkan switch dengan pc, kami menggunakan kabel copper straight-through. Kabel copper straight-through juga digunakan untuk menghubungkan switch dengan server.

1. **Topology**

Rancangan jaringan kami menggunakan topologi star dengan alat concentrator, yang dapat berupa hub atau switch, sebagai pusat komunikasi. Kelebihannya mencakup kemudahan pengelolaan dan deteksi kesalahan karena setiap komponen terhubung langsung ke pusat. Meskipun kegagalan pada satu komponen tidak berdampak pada yang lain, adanya risiko putusnya seluruh komunikasi jika terjadi masalah di pusat kontrol. Perlu diperhatikan bahwa semakin banyak komputer yang terhubung pada jaringan star dapat mengakibatkan penurunan kinerja komunikasi.

A diagram of a network

Description automatically generatedDibawah ini adalah gambar dari topology kami:

1. **Table Subnetting**

Server

|  |  |  |
| --- | --- | --- |
| Nama | IP Address | Port |
| Server0 | 192.168.1.254 | Fa0 |

Router

|  |  |  |  |
| --- | --- | --- | --- |
| Nama | Network | IP Address | Port |
| Router 1 | 192.168.0.0/26 | 192.168.0.1/26 | Fa0/0.10 |
|  | 192.168.1.32/27 | 192.168.1.33/27 | Fa0/0.20 |
|  | 192.168.1.0/27 | 192.168.1.1/27 | Fa0/0.30 |
|  | 192.168.0.192/26 | 192.168.0.193/26 | Fa0/0.40 |
|  | 192.168.0.64/26 | 192.168.0.65/26 | Fa0/0.50 |
|  | 192.168.0.128/26 | 192.168.0.129/26 | Fa0/0.60 |
|  | 192.168.1.252/29 | 192.168.1.253/29 | Fa0/0.70 |
|  | 10.10.10.24/30 | 10.10.10.26/30 | Se2/0 |
|  | 10.10.10.0/30 | 10.10.10.1/30 | Se3/0 |
| Router 8 | 192.168.2.224/27 | 192.168.2.225/27 | Fa0/0.20 |
|  | 192.168.2.192/27 | 192.168.2.193/27 | Fa0/0.30 |
|  | 192.168.2.128/26 | 192.168.2.129/26 | Fa0/0.40 |
|  | 192.168.2.0/26 | 192.168.2.1/26 | Fa0/0.50 |
|  | 192.168.2.64/26 | 192.168.2.65/26 | Fa0/0.60 |
|  | 10.10.10.0/30 | 10.10.10.2/30 | Se2/0 |
|  | 10.10.10.4/30 | 10.10.10.5/30 | Se3/0 |
| Router 5 | 192.168.3.0/26 | 192.168.3.1/26 | Fa0/0.10 |
|  | 192.168.3.192/27 | 192.168.3.193/27 | Fa0/0.30 |
|  | 192.168.3.128/26 | 192.168.3.129/26 | Fa0/0.40 |
|  | 192.168.3.64/26 | 192.168.3.65/26 | Fa0/0.60 |
|  | 10.10.10.4/30 | 10.10.10.6/30 | Se2/0 |
|  | 10.10.10.8/30 | 10.10.10.9/30 | Se3/0 |
| Router 6 | 192.168.8.0/26 | 192.168.8.1/26 | Fa0/0.10 |
|  | 192.168.8.64/26 | 192.168.8.65/26 | Fa0/0.50 |
|  | 192.168.8.128/26 | 192.168.8.129/26 | Fa0/0.60 |
|  | 10.10.10.8/30 | 10.10.10.10/30 | Se2/0 |
|  | 10.10.10.12/30 | 10.10.10.13/30 | Se3/0 |
| Router 4 | 192.168.5.0/26 | 192.168.5.1/26 | Fa0/0.10 |
|  | 192.168.5.192/27 | 192.168.5.193/27 | Fa0/0.30 |
|  | 192.168.5.64/26 | 192.168.5.65/26 | Fa0/0.50 |
|  | 192.168.5.128/26 | 192.168.5.129/26 | Fa0/0.60 |
|  | 10.10.10.12/30 | 10.10.10.14/30 | Se2/0 |
|  | 10.10.10.16/30 | 10.10.10.17/30 | Se3/0 |
| Router 7 | 192.168.6.0/26 | 192.168.6.1/26 | Fa0/0.10 |
|  | 192.168.7.0/27 | 192.168.7.1/27 | Fa0/0.30 |
|  | 192.168.6.192/26 | 192.168.6.193/26 | Fa0/0.40 |
|  | 192.168.6.64/26 | 192.168.6.65/26 | Fa0/0.50 |
|  | 192.168.6.128/26 | 192.168.6.129/26 | Fa0/0.60 |
|  | 10.10.10.16/30 | 10.10.10.18/30 | Se2/0 |
|  | 10.10.10.20/30 | 10.10.10.21/30 | Se3/0 |
| Router 0 | 192.168.4.192/27 | 192.168.4.193/27 | Fa0/0.20 |
|  | 192.168.4.128/26 | 192.168.4.129/26 | Fa0/0.40 |
|  | 192.168.4.0/26 | 192.168.4.1/26 | Fa0/0.50 |
|  | 192.168.4.64/26 | 192.168.4.65/26 | Fa0/0.60 |
|  | 10.10.10.24/30 | 10.10.10.25/30 | Se2/0 |
|  | 10.10.10.20/30 | 10.10.10.22/30 | Se3/0 |

Switch

|  |  |  |
| --- | --- | --- |
| Nama | Port | Keterangan |
| Switch1 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch2 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch3 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch4 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch5 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch6 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch7 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch8 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch9 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch10 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch11 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch12 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch13 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch14 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch15 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch16 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch17 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch18 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch19 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch20 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch21 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch22 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch23 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch24 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch25 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch26 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch27 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch28 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch29 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch30 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch31 | Fa0/1 | - |
|  | Fa0/2 | - |
|  | Fa0/3 | - |
| Switch32 | Fa0/1 | Access VLAN 10 |
|  | Fa0/2 | Access VLAN 20 |
|  | Fa0/3 | Access VLAN 30 |
|  | Fa0/4 | Access VLAN 40 |
|  | Fa0/5 | Access VLAN 50 |
|  | Fa0/6 | Access VLAN 60 |
|  | Fa0/7 | Trunk |
|  | Fa0/8 | Access VLAN 60 |
| Switch46 | Fa0/1 | Access VLAN 20 |
|  | Fa0/2 | Access VLAN 30 |
|  | Fa0/3 | Access VLAN 40 |
|  | Fa0/4 | Access VLAN 50 |
|  | Fa0/5 | Access VLAN 60 |
|  | GigabitEthernet0/1 | Trunk |
| Switch54 | Fa0/1 | Access VLAN 10 |
|  | Fa0/2 | Access VLAN 30 |
|  | Fa0/3 | Access VLAN 40 |
|  | Fa0/4 | Access VLAN 60 |
|  | GigabitEthernet0/1 | Trunk |
| Switch58 | Fa0/1 | Access VLAN 10 |
|  | Fa0/2 | Access VLAN 50 |
|  | Fa0/3 | Access VLAN 60 |
|  | GigabitEthernet0/1 | Trunk |
| Switch50 | Fa0/1 | Access VLAN 10 |
|  | Fa0/2 | Access VLAN 30 |
|  | Fa0/3 | Access VLAN 50 |
|  | Fa0/4 | Access VLAN 60 |
|  | GigabitEthernet0/1 | Trunk |
| Switch40 | Fa0/1 | Access VLAN 10 |
|  | Fa0/2 | Access VLAN 30 |
|  | Fa0/3 | Access VLAN 40 |
|  | Fa0/4 | Access VLAN 50 |
|  | Fa0/5 | Access VLAN 60 |
|  | Fa0/6 | Trunk |
| Switch36 | Fa0/1 | Access VLAN 20 |
|  | Fa0/2 | Access VLAN 40 |
|  | Fa0/3 | Access VLAN 50 |
|  | Fa0/4 | Access VLAN 60 |
|  | GigabitEthernet0/1 | Trunk |

PC

Kota Malang

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Malang\_A | VLAN 10 | 192.168.0.1 - 192.168.0.62 | 192.168.0.0 | 255.255.255.192 | 192.168.0.63 |
| Malang\_E | VLAN 50 | 192.168.0.65 - 192.168.0.126 | 192.168.0.64 | 255.255.255.192 | 192.168.0.127 |
| Malang\_F | VLAN 60 | 192.168.0.129 - 192.168.0.190 | 192.168.0.128 | 255.255.255.192 | 192.168.0.191 |
| Malang\_D | VLAN 40 | 192.168.0.193 - 192.168.0.254 | 192.168.0.192 | 255.255.255.192 | 192.168.0.255 |
| Malang\_C | VLAN 30 | 192.168.1.1 - 192.168.1.30 | 192.168.1.0 | 255.255.255.224 | 192.168.1.31 |
| Malang\_B | VLAN 20 | 192.168.1.33 - 192.168.1.62 | 192.168.1.32 | 255.255.255.224 | 192.168.1.63 |

Kota Jakarta

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Jakarta\_E | VLAN 50 | 192.168.2.1 - 192.168.2.62 | 192.168.2.0 | 255.255.255.192 | 192.168.2.63 |
| Jakarta\_F | VLAN 60 | 192.168.2.65 - 192.168.2.126 | 192.168.2.64 | 255.255.255.192 | 192.168.2.127 |
| Jakarta\_D | VLAN 40 | 192.168.2.129 - 192.168.2.190 | 192.168.2.128 | 255.255.255.192 | 192.168.2.191 |
| Jakarta\_C | VLAN 30 | 192.168.2.193 - 192.168.2.222 | 192.168.2.192 | 255.255.255.224 | 192.168.2.223 |
| Jakarta\_B | VLAN 20 | 192.168.2.225 - 192.168.2.254 | 192.168.2.224 | 255.255.255.224 | 192.168.2.255 |

Kota Yogyakarta

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Yogyakarta\_A | VLAN 10 | 192.168.3.1 - 192.168.3.62 | 192.168.3.0 | 255.255.255.192 | 192.168.3.63 |
| Yogyakarta\_F | VLAN 60 | 192.168.3.65 - 192.168.3.126 | 192.168.3.64 | 255.255.255.192 | 192.168.3.127 |
| Yogyakarta\_D | VLAN 40 | 192.168.3.129 - 192.168.3.190 | 192.168.3.128 | 255.255.255.192 | 192.168.3.191 |
| Yogyakarta\_C | VLAN 30 | 192.168.3.193 - 192.168.3.222 | 192.168.3.192 | 255.255.255.224 | 192.168.3.223 |

Kota Semarang

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Semarang\_E | VLAN 50 | 192.168.4.1 - 192.168.4.62 | 192.168.4.0 | 255.255.255.192 | 192.168.4.63 |
| Semarang\_F | VLAN 60 | 192.168.4.65 - 192.168.4.126 | 192.168.4.64 | 255.255.255.192 | 192.168.4.127 |
| Semarang\_D | VLAN 40 | 192.168.4.129 - 192.168.4.190 | 192.168.4.128 | 255.255.255.192 | 192.168.4.191 |
| Semarang\_B | VLAN 20 | 192.168.4.193 - 192.168.4.222 | 192.168.4.192 | 255.255.255.224 | 192.168.4.223 |

Kota Bandung

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Bandung\_A | VLAN 10 | 192.168.6.1 - 192.168.6.62 | 192.168.6.0 | 255.255.255.192 | 192.168.6.63 |
| Bandung \_E | VLAN 50 | 192.168.6.65 - 192.168.6.126 | 192.168.6.64 | 255.255.255.192 | 192.168.6.127 |
| Bandung \_F | VLAN 60 | 192.168.6.129 - 192.168.6.190 | 192.168.6.128 | 255.255.255.192 | 192.168.6.191 |
| Bandung \_D | VLAN 40 | 192.168.6.193 - 192.168.6.254 | 192.168.6.192 | 255.255.255.192 | 192.168.6.255 |
| Bandung \_C | VLAN 30 | 192.168.7.1 - 192.168.7.30 | 192.168.7.0 | 255.255.255.224 | 192.168.7.31 |

Kota Bali

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Bali\_A | VLAN 10 | 192.168.5.1 - 192.168.5.62 | 192.168.5.0 | 255.255.255.192 | 192.168.5.63 |
| Bali\_E | VLAN 50 | 192.168.5.65 - 192.168.5.126 | 192.168.5.64 | 255.255.255.192 | 192.168.5.127 |
| Bali\_F | VLAN 60 | 192.168.5.129 - 192.168.5.190 | 192.168.5.128 | 255.255.255.192 | 192.168.5.191 |
| Bali\_C | VLAN 30 | 192.168.5.193 - 192.168.5.222 | 192.168.5.192 | 255.255.255.224 | 192.168.5.223 |

Kota Palembang

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nama | VLAN | Usable Host | Network | Subnet Mask | Broadcast |
| Palembang\_A | VLAN 10 | 192.168.8.1 - 192.168.8.62 | 192.168.8.0 | 255.255.255.192 | 192.168.8.63 |
| Palembang\_E | VLAN 50 | 192.168.8.65 - 192.168.8.126 | 192.168.8.64 | 255.255.255.192 | 192.168.8.127 |
| Palembang\_F | VLAN 60 | 192.168.8.129 - 192.168.8.190 | 192.168.8.128 | 255.255.255.192 | 192.168.8.191 |

1. **Proses Konfigurasi**

Konfigurasi IP untuk kota malang department A

Ip gateway untuk router

A screenshot of a computer

Description automatically generated

PC 1-Departement A

A screenshot of a computer

Description automatically generated

PC 2 -Departement A

A screenshot of a computer

Description automatically generated

PC 1-Departement B

A screenshot of a computer

Description automatically generatedPC 2-Departement B

A screenshot of a computer

Description automatically generated

PC 1 – Departement C

A screenshot of a computer

Description automatically generated

PC 2 - Departement C

A screenshot of a computer

Description automatically generated

PC 1 – Departement D

A screenshot of a computer

Description automatically generated

PC2 – Departement D

A screenshot of a computer

Description automatically generated

PC 1 -Departement E

A screenshot of a computer

Description automatically generated

PC 2 -Departement E

A screenshot of a computer

Description automatically generated

PC 1 – Departement F

A screenshot of a computer

Description automatically generatedPC 2 – Departement F

A screenshot of a computer

Description automatically generated

Konfigurasi IP untuk Server pada kota malang

A screenshot of a computer program

Description automatically generated

Konfigurasi DNS di server kota Malang

A screenshot of a computer

Description automatically generated

Konfigurasi VLAN pada kota malang

A screenshot of a computer program

Description automatically generated

Memasukan vlan 10 terhadap kabel yang terhubung ke department A

A screenshot of a computer

Description automatically generated

Memasukan vlan 20 terhadap kabel yang terhubung ke department B

A screenshot of a computer

Description automatically generated

Memasukan vlan 30 terhadap kabel yang terhubung ke department C

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated Masukan vlan 40 terhadap kabel yang terhubung ke departement D

Masukan vlan 50 terhadap kabel yang terhubung ke departement E

A screenshot of a computer

Description automatically generated Masukan vlan 60 terhadap kabel yang terhubung ke departement F

Masukan vlan 60 terhadap kabel ke router

A screenshot of a computer

Description automatically generated

Memasukan vlan 70 terhadap kabel ke server

A screenshot of a computer

Description automatically generated

**Konfigurasi ip untuk kota Jakarta**

Beri ip terhadap router sebagai gateway, beri ip gateway terhadap kabel yang menuju switch kota Jakarta

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department B

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc1 dan pc 2 di department C

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc1 dan pc 2 di department D

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc1 dan pc 2 di department E

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc1 dan pc 2 di department F

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

Konfigurasi VLAN untuk dimasukan kedalam VLAN database pada kota Jakarta

A screenshot of a computer program

Description automatically generated

Memeasukan vlan dengan mode access ke dalam kabel yang menuju ke department b,c,d,e,f

A screenshot of a computer program

Description automatically generated

Dan masukan vlan pada kabel yang menuju router

A white background with black text

Description automatically generated

Konfigurasi IP untuk kota Yogyakarta

Konfigurasi router kota Yogyakarta

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department A

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department C

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department D

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department F

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Menambahkan vlan kedalam vlan database

A screenshot of a computer code

Description automatically generated

Konfigurasi vlan untuk diterapkan kedalam kabel yang menuju department A,C,D,F dan router

A screenshot of a computer program

Description automatically generated

Konfigurasi ip untuk kota Semarang

Memberi ip gateway kepada router pada kota Semarang

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc1 dan pc 2 di department A

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department D

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department E

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department F

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Menambahkan vlan kedalam vlan database

A screenshot of a computer code

Description automatically generated

Konfigurasi vlan kedalam kabel yang terhubung ke department b,d,e,f dan router

A screen shot of a computer

Description automatically generated

Konfigurasi IP untuk kota Bandung

Memasukan ip gateway kedalam router

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 kedalam department A

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department C

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department D

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department E

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department F

A screenshot of a computer

Description automatically generated A screenshot of a computer

Description automatically generated

Menambahkan vlan kedalam vlan database pada switch kota Bandung

A screenshot of a computer code

Description automatically generated

Konfigurasi vlan kedalam kabel yang terhubung ke department a,c,d,e,f dan router

A screenshot of a computer program

Description automatically generated

Konfigurasi ip untuk kota Bali

Masukan ip gateway untuk router kota Bali

A screenshot of a computer

Description automatically generated

memasukan ip kedalam pc 1 dan pc 2 di department AA screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department C

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A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department E

A screenshot of a computer

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A screenshot of a computer

Description automatically generated

Memasukan ip kedalam pc 1 dan pc 2 di department F

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Memasukan vlan kedalam vlan database kota Bali

A screenshot of a computer program

Description automatically generated

Konfigurasi vlan kedalam kabel yang terhubung dengan department A,C,E,F , dan router

A screenshot of a computer program

Description automatically generated

Konfigurasi ip untuk kota Palembang

Masukan ip untuk router pada kota Palembang

A screenshot of a computer

Description automatically generated

Masukan ip pada pc 1 dan pc 2 di department A

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Masukan ip pada pc 1 dan pc 2 di department E

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Masukan ip pada pc 1 dan pc 2 di department F

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Masukan vlan kedalam vlan database pada switch kota Palembang

A computer code with numbers and symbols

Description automatically generated

Konfigurasi vlan kedalam kabel yang terhubung ke department A, E, F, dan router

A screenshot of a computer program

Description automatically generated

Masukan ip pada router terhadapt kabel yang menghubungkan antar router dengan router dari kota lainnya

Router Malang ke Jakarta dengan network base 10.10.10.0/30

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Router Jakarta ke Yogyakarta dengan network base 10.10.10.4/30

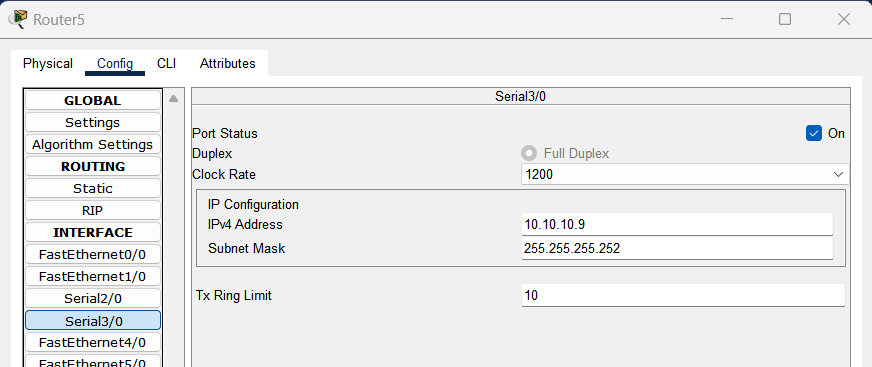
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Router Yogyakarta dengan Palembang dengan network base 10.10.10.8



A screenshot of a computer

Description automatically generated

Router Palembang ke Bali dengan network base 10.10.10.12/30

A screenshot of a computer

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A screenshot of a computer

Description automatically generated

Router dari Bali ke Bandung dengan network base 10.10.10.16/30

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Router dari Bandung ke Semarang dengan network base 10.10.10.20/30

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Router Semarang ke Malang dengan network base 10.10.10.24/30

A screenshot of a computer

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A screenshot of a computer

Description automatically generated

Konfigurasi encapsulation pada router Malang

A screenshot of a computer

Description automatically generated

Konfigurasi encapsule pada router kota Jakarta

A screenshot of a computer program

Description automatically generated

Konfigurasi encapsule pada router Yogyakarta A screenshot of a computer program

Description automatically generated

Konfigurasi encapsule pada router Semarang

A computer screen shot of a program

Description automatically generated

Konfigurasi encapsule pada router Bandung

A screenshot of a computer program

Description automatically generated

Konfigurasi encapsule pada router Bali

A screenshot of a computer program

Description automatically generated

Konfigurasi encapsule pada router Palembang

A screenshot of a computer program

Description automatically generated

**Menambahkan routing dengan menggunakan OSPF**

CLI routing OSPF kota Malang

A computer screen shot of a computer

Description automatically generated

CLI routing OSPF kota Jakarta

A screen shot of a computer

Description automatically generated

CLI routing OSPF kota Yogyakarta

A screenshot of a computer

Description automatically generated

CLI routing OSPF kota Semarang

A screenshot of a computer

Description automatically generated

CLI routing OSPF kota Bandung

A screenshot of a computer screen

Description automatically generated

CLI routing OSPF kota Bali

A screenshot of a computer

Description automatically generated

CLI routing OSPF kota Palembang

A screenshot of a computer code

Description automatically generated

Konfigurasi Access-List pada router kota Malang

A screenshot of a computer program

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A screenshot of a computer program

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A screenshot of a computer program

Description automatically generated A screenshot of a computer program

Description automatically generated

Konfigurasi Access-List pada router kota Jakarta

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

Konfigurasi Access-List pada router kota Yogyakarta

A screenshot of a computer program

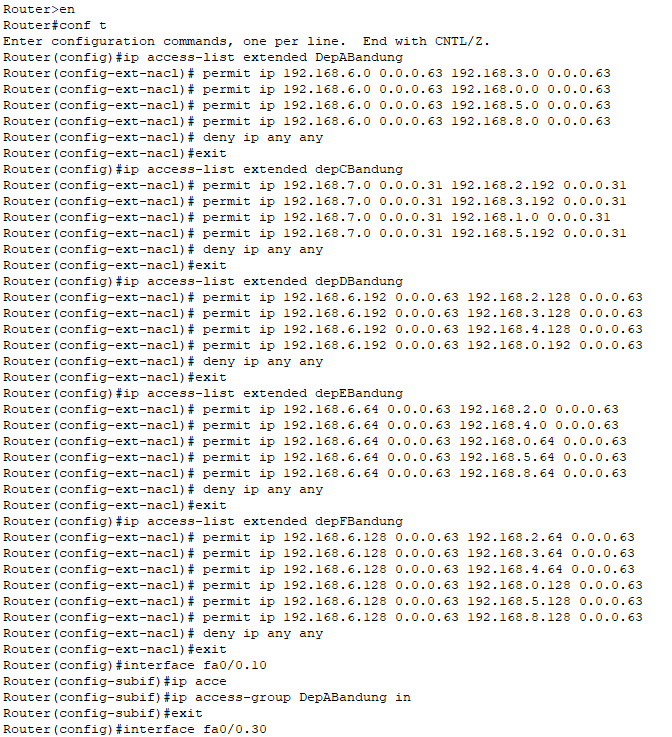
Description automatically generated

Konfigurasi Access-List pada router kota Semarang

A screenshot of a computer program

Description automatically generated

Konfigurasi Access-List pada router kota Bandung

 A screenshot of a computer code

Description automatically generated

Konfigurasi Access-List pada router kota Bali

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

Konfigurasi Access-List pada router kota Palembang

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

1. **Hasil Konfigurasi**

DNS

A screenshot of a computer

Description automatically generated

Pengiriman data antar Departemen A

A computer screen shot of a computer

Description automatically generated

Pengiriman data antar Departemen B

A close up of a white background

Description automatically generated

Pengiriman data antar Departemen C

A close up of a text

Description automatically generated

Pengiriman data antar Departemen D

A computer screen shot of a computer

Description automatically generated

Pengiriman data antar Departemen E

A close up of a computer screen

Description automatically generated

Pengiriman data antar Departemen F

A screenshot of a computer

Description automatically generated

Pengiriman data antar Server dan Departemen F

A screenshot of a computer

Description automatically generated

1. **Link Youtube**

<https://youtu.be/M-stzuMBhwg>