

# **ACTUAL TOPOLOGY TEST PROJECT**



## ***IT NETWORK SYSTEMS ADMINISTRATION***

**KELOMPOK INFORMATION AND COMMUNICATION TECHNOLOGY**

**LOMBA KOMPETENSI SISWA  
SEKOLAH MENENGAH KEJURUAN  
TINGKAT NASIONAL KE XXX  
TAHUN 2022**

## TENTANG DOKUMEN

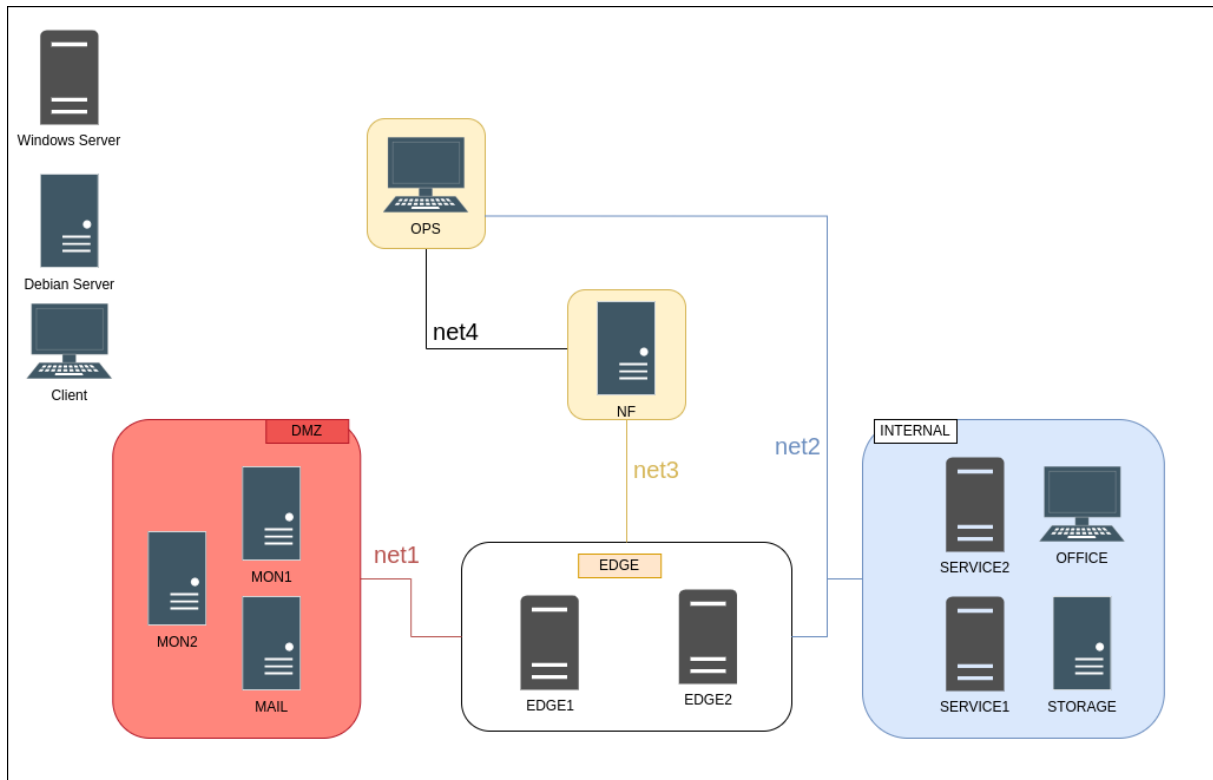
Dokumen ini merupakan dokumen yang tidak terpisahkan dengan dokumen lainnya sebagai informasi dalam Lomba Kompetensi Siswa SMK Tingkat Nasional tahun 2022. Dokumen ini dibuat sebagai informasi Actual Topologi yang akan digunakan pada Test Project (soal) LKS Tingkat Nasional 2022 Bidang IT Network Systems Administration. Sebagai dokumen actual, dokumen ini menjadi informasi yang jelas untuk topologi yang akan digunakan sesuai dengan Infrastruktur Cloud yang diberikan. Dokumen mungkin akan mengalami perubahan hanya jika terjadi anulir atau revisi soal yang berkaitan dengan kebutuhan sistem/protocol/teknologi atau vendor serta kemungkinannya untuk diselesaikan.

## MODULE A

### CLIENT SERVER

A branch of a big company has hired you to configure their newly built infrastructure. There will be three sites, DMZ, Internal, and Edge. They will use both Windows and Linux for their services. Attached the logical topology of the new branch infrastructure.

# Topology



Gambar Actual Topologi Modul Client Server

## Client Server

- **Edge**

- Firewall
- Load Balancing Traffic
- Routing
- Routing Failover
- Configure DHCP
- Network Boot

- **DMZ**

- Configure Service Monitoring
- Configure Mail Service
- Configure LDAP
- Service Failover
- Remote Access VPN
- Certificate Authority

- **Internal**

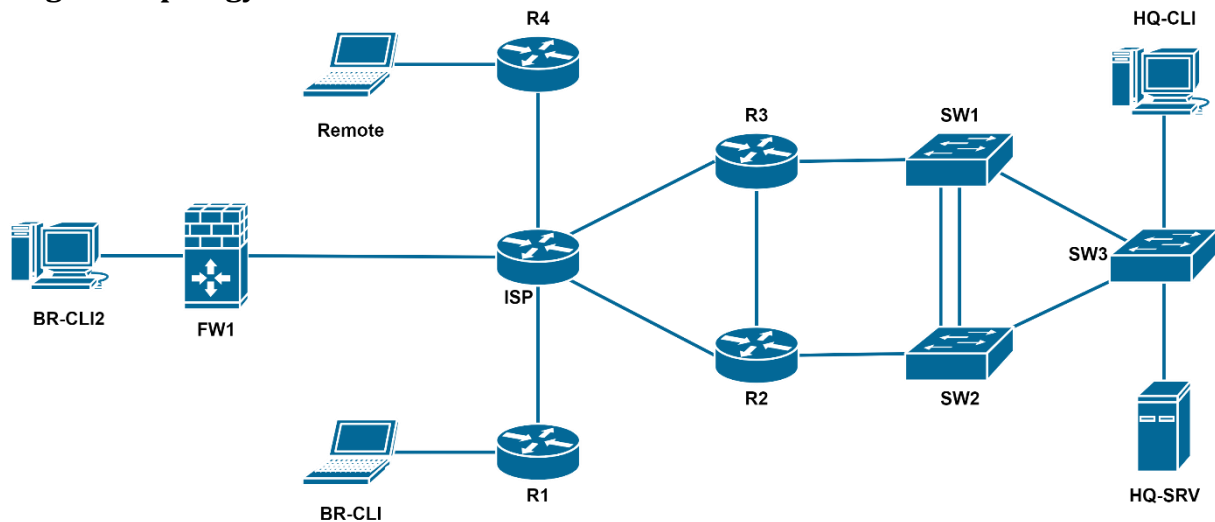
- Shared File Service
- Configure Web Service
- Enable HTTPS
- Configure DNS
- Backup and Restore
- Role Based Access Policy
- Configure Operating System

## MODULE B

### NETWORK SYSTEMS

Kemendikbud has a complicated network infrastructure to connect Workstations and Servers in different places. Network traffic will be managed using the technologies of Cisco devices including Layer-3 Switches, Regular Switches, and Routers. Please configure according to the requirements to enable reliable connection between different places.

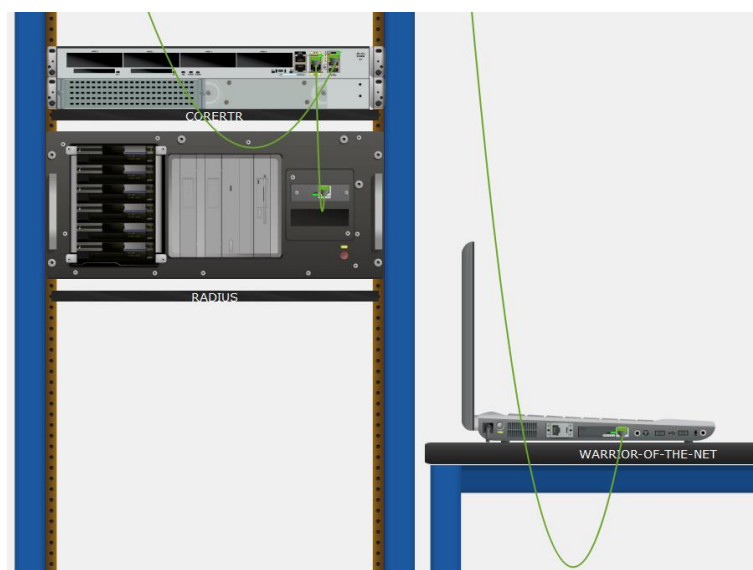
#### Logical Topology



Gambar Actual Topology Modul Network Systems

#### Physical Topology

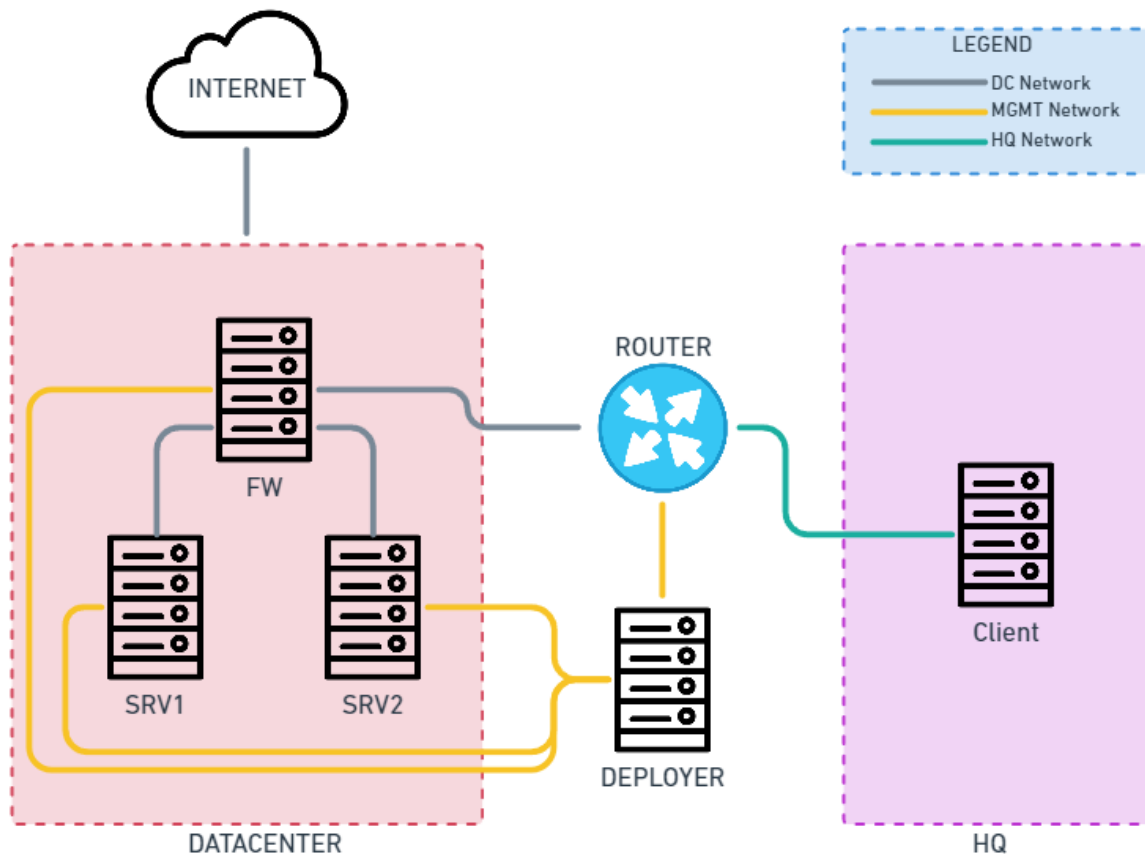
Modul Network Systems akan menggunakan Cisco Packet Tracer dengan hanya mode Physical Topologi yang diperbolehkan dalam melakukan konfigurasi. Berikut ini sebagai gambaran.



\*Gambar Contoh

**MODULE C****INFRASTRUCTURE PROGRAMMABILITY & AUTOMATION**

A small UMKM in Indonesia just procured a lot of servers to support their containerized online services. They are hiring for new engineers to help manage the servers. This is the sample of their technical test for recruitment. You will need to utilize many tools to configure, manage, and deploy the infrastructure.

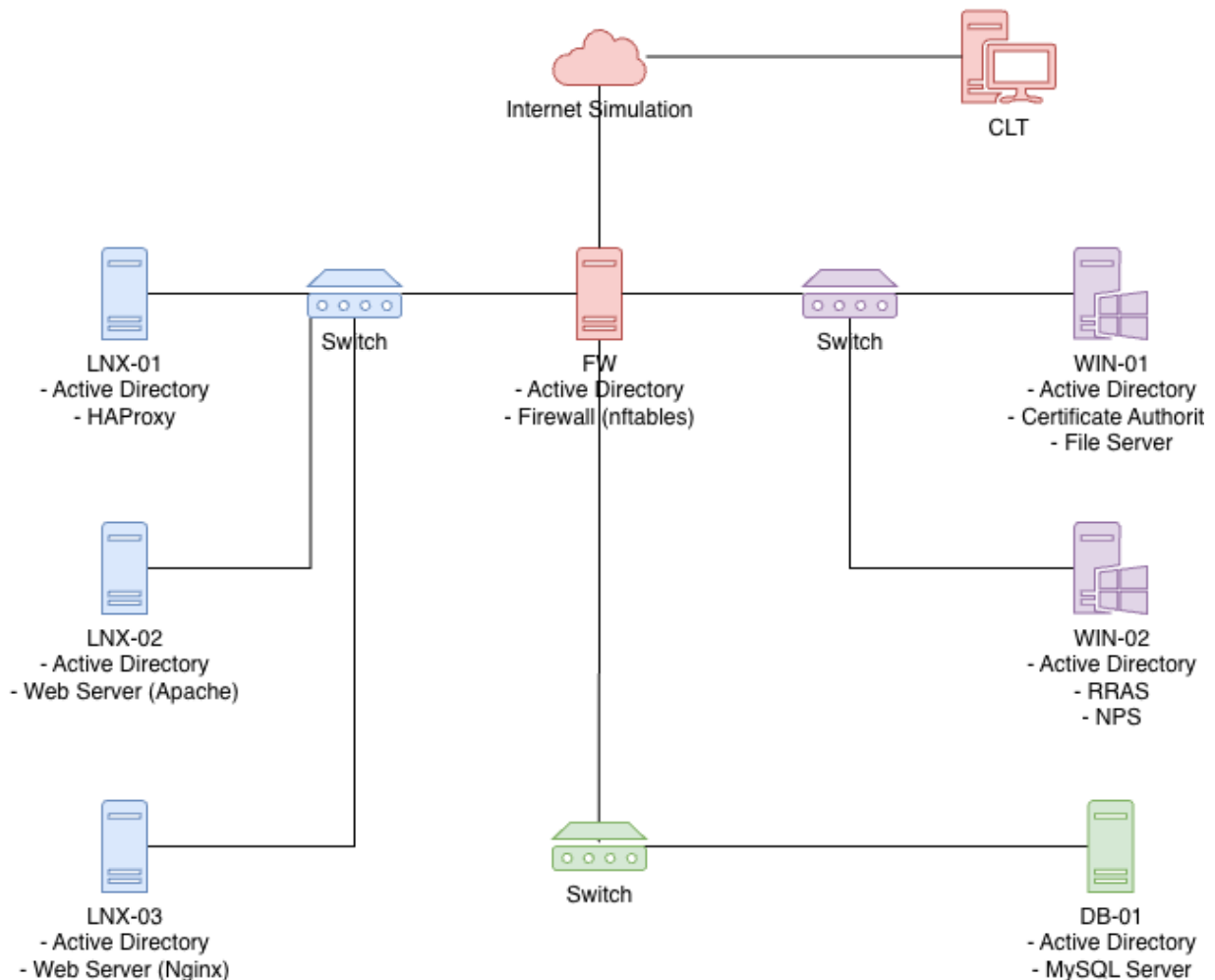
**Topology**

Gambar Actual Topologi Modul Infrastructure programmability & automation

## MODULE D

### TROUBLESHOOTING INTEGRATION

You are a newly hired senior engineer in a big IT solution company. As a part of your probation, you need to solve issues in one of the company's clients that runs in the cyber security area. This project has little to no documentation, so you need to investigate on your own for missing information.



Gambar Actual Topologi Modul Troubleshooting Integration