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**LOMBA KOMPETENSI SISWA (LKS)-SMK
TINGKAT NASIONAL XXX TAHUN 2022**

BIDANG LOMBA

**Teknologi Informasi Sistem Administrasi Jaringan
(IT Network System Administration)**



Teknologi Informasi & Komunikasi

***TEKNOLOGI INFORMASI SISTEM
ADMINISTRASI JARINGAN
IT NETWORK SYSTEMS ADMINISTRATION***

**KELOMPOK
INFORMATION AND COMMUNICATION TECHNOLOGY**



KISI-KISI

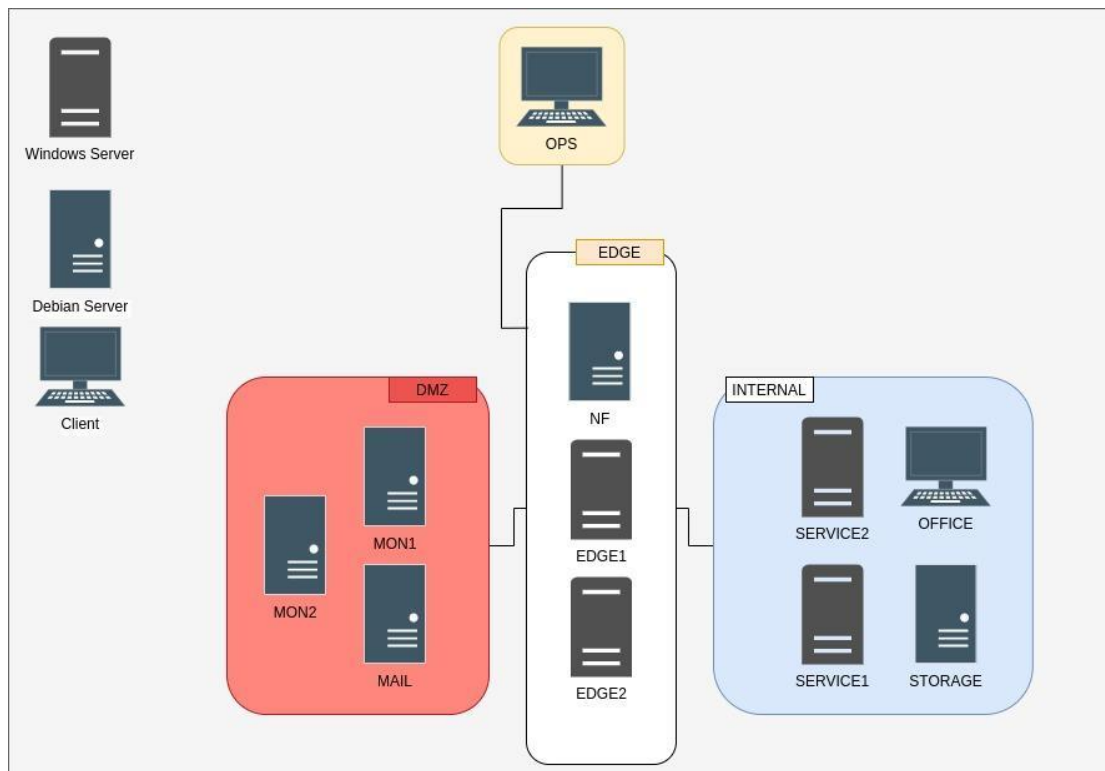
**LOMBA KOMPETENSI SISWA SEKOLAH MENENGAH KEJURUAN
TINGKAT NASIONAL XXX
TAHUN 2022**

MODUL 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



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

Configuration Table

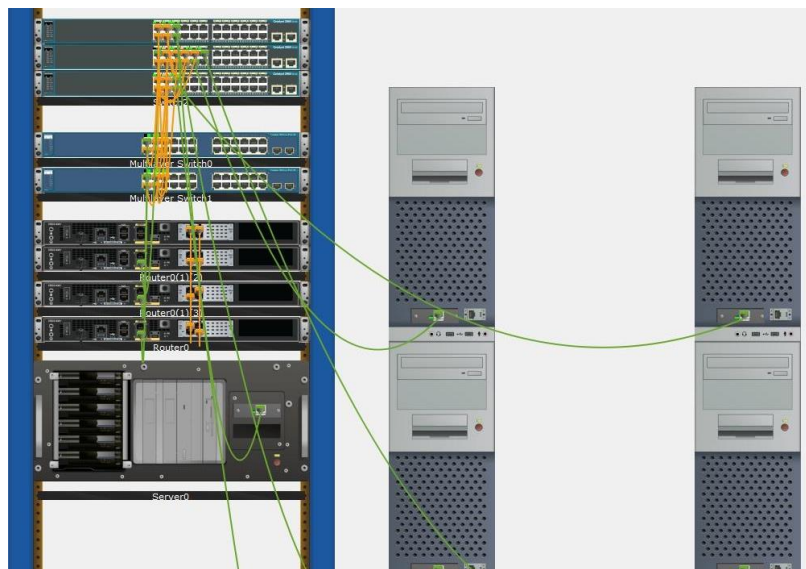
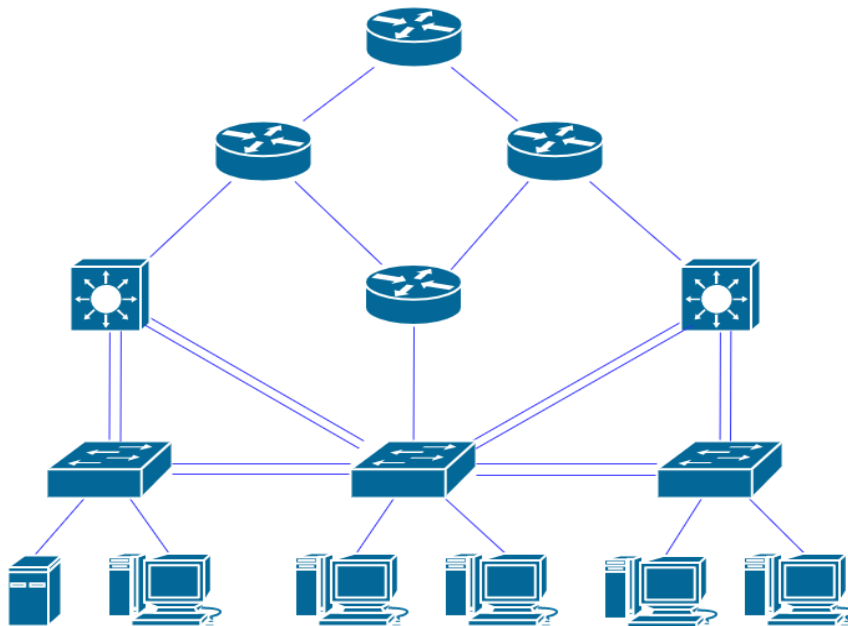
Hostname	Operating System	IP Address	Preinstalled
EDGE1	Windows Server 2019 desktop	10.99.99.253/24	Yes
		10.199.99.252/30	
		172.16.34.125/24	
EDGE2	Windows Server 2019 desktop	10.99.99.254/24	yes
		10.199.99.253/30	
		172.16.34.126/24	
SERVICE1	Windows Server 2019 desktop	172.16.34.11/25	yes
SERVICE2	Windows Server 2019 core	172.16.34.12/25	yes
NF	Debian 10 Server	202.29.195.24/31	yes
		10.199.99.254/30	
OPS	Windows 10	202.29.195.23/31	yes
MON1	Debian 10 Server	10.99.99.21/24	yes
MON2	Debian 10 Server	10.99.99.22/24	yes
MAIL	Debian 10 Server	10.99.99.25/24	yes
STORAGE	Debian 10 Server	172.16.34.15/25	yes
OFFICE	Debian 10 Client	172.16.34.10/25	yes

MODUL 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

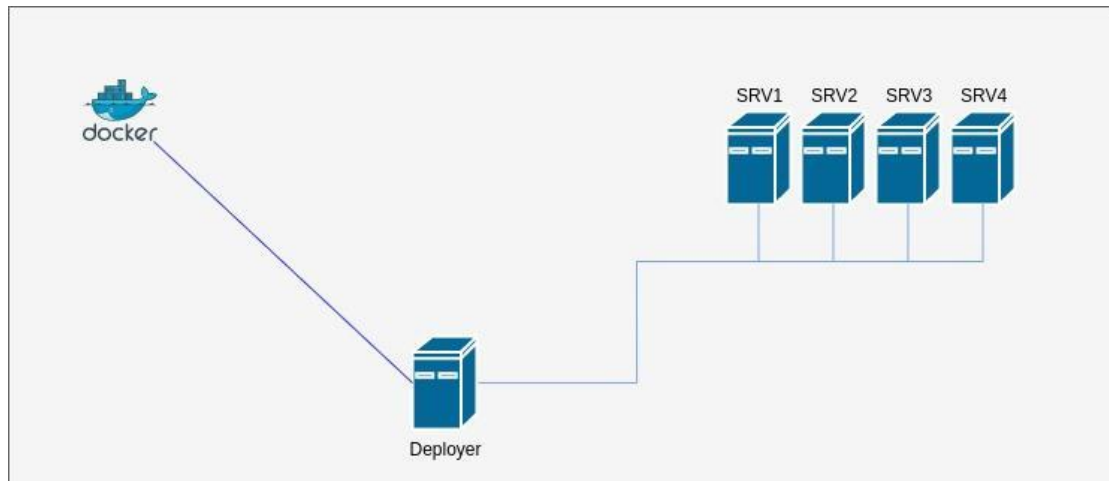


MODUL C

INFRASTRUCTURE PROGRAMMABLE & 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



MODUL D**TROUBLESHOOTING INTEGRATION**

Welcome to PT Pasai. You will be in charge of helping our customer with support to troubleshoot many issues in the datacenter. The issue can be anywhere within the datacenter, please be prepared. Our former engineer will send you their engineering notes later, for now we can only provide you with the diagram of the datacenter.

