



Puspresnas
Pusat Prestasi Nasional

KISI-KISI DAN SOAL-SOAL

**LOMBA KOMPETISI SISWA (LKS)
TINGKAT NASIONAL XXIX
TAHUN 2021**



BIDANG LOMBA

Teknologi Informasi Sistem Administrasi
IT Network System Administration



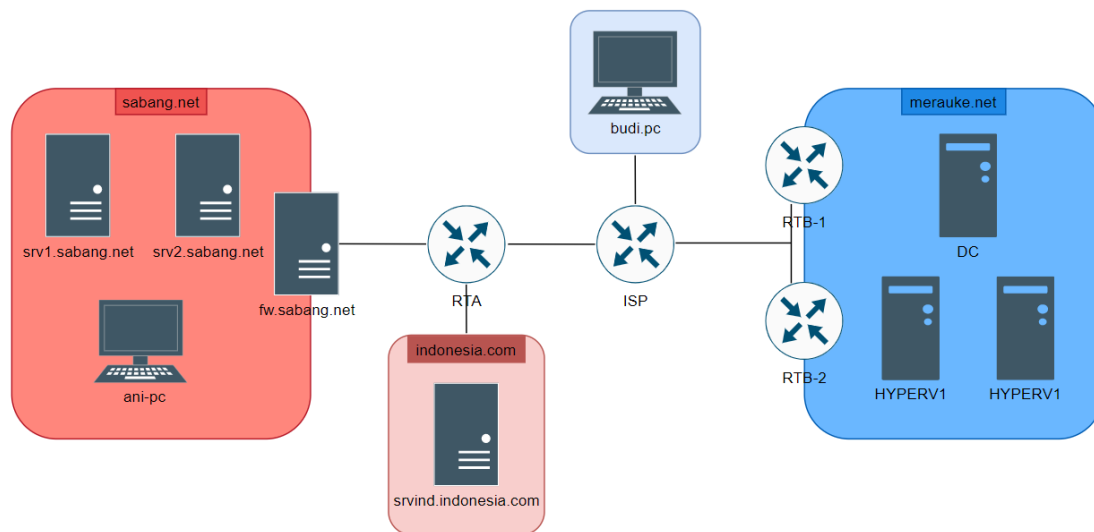
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MODUL A

INTEGRATION SYSTEMS

A small startup company's production environment contains numerous services within multiple Operating Systems. We will ask you to install, configure, and integrate the different services. Attached below is the topology design and appendix of all our servers and network devices.

Topology



Integration Systems Part 1

- Network Infrastructure
 - Basic Configuration
 - Configure Routing
 - Enable NAT
 - Setup Firewall
 - Configure Site-to-Site VPN IPsec
- Linux Services
 - Setup DNS
 - Configure Web Service
 - Configure Load Balancer
 - Enable Failover
 - Setup ISCSI
 - Configure DHCP

Integration Systems Part 2

- Linux Services
 - Configure Email Services
 - Enable HTTPS
- Windows Services

- Setup ADDS
- Configure DNS
- Setup CA
- Enable Backup
- Configure File Sharing
- Setup ISCSI
- Virtualization Hyper V
- Configure Failover Cluster
- Configure Web service HTTPS
- Setup VPN

Configuration Table

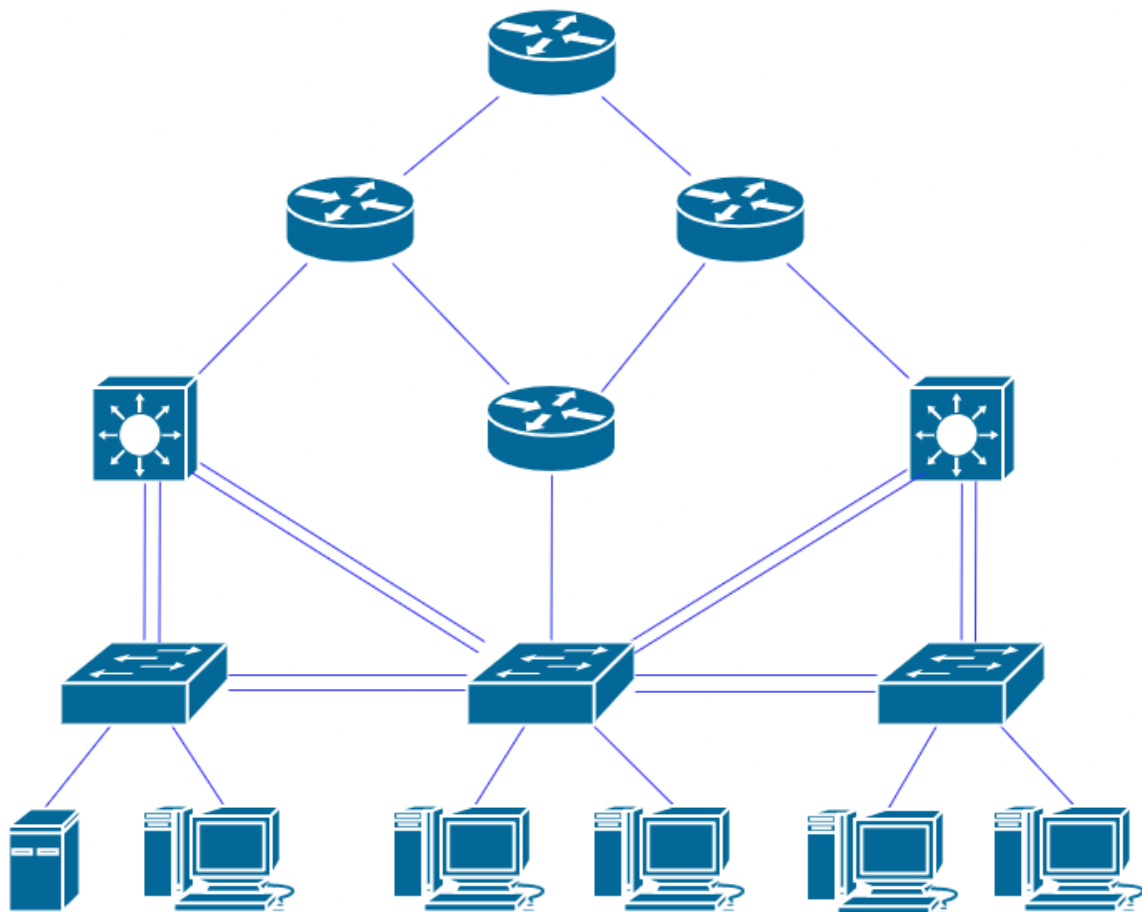
Hostname	Operating System	Domain	Preinstalled
DC	Windows Server 2019 desktop	merauke.net	Yes - Configure as DC
HYPERV1	Windows Server 2019 desktop	merauke.net	yes
HYPERV2	Windows Server 2019 core	merauke.net	yes
WEB	Windows Server 2019 core	merauke.net	no
budi-pc	Windows 10	-	yes
RTA	IOS	indonesia.com	yes
RTB-1	IOS	indonesia.com	yes
RTB-2	IOS	indonesia.com	yes
ISP	IOS	indonesia.com	yes
srvind.indonesia.com	Debian 10 Server	indonesia.com	yes
fw.sabang.net	Debian 10 Server	sabang.net	yes
srv1.sabang.net	Debian 10 Server	sabang.net	yes
srv2.sabang.net	Debian 10 Server	sabang.net	yes
ani-pc	Debian 10 Client	sabang.net	yes

MODUL B

NETWORK SYSTEMS

Gajahmada Corporation has a small office network topology to connect Workstations and Servers in different rooms. Network traffic will be managed using the technologies of Cisco devices including Layer-3 Switches, Regular Switches, and Routers. Please configure a reliable network infrastructure to support our business activities.

Topology

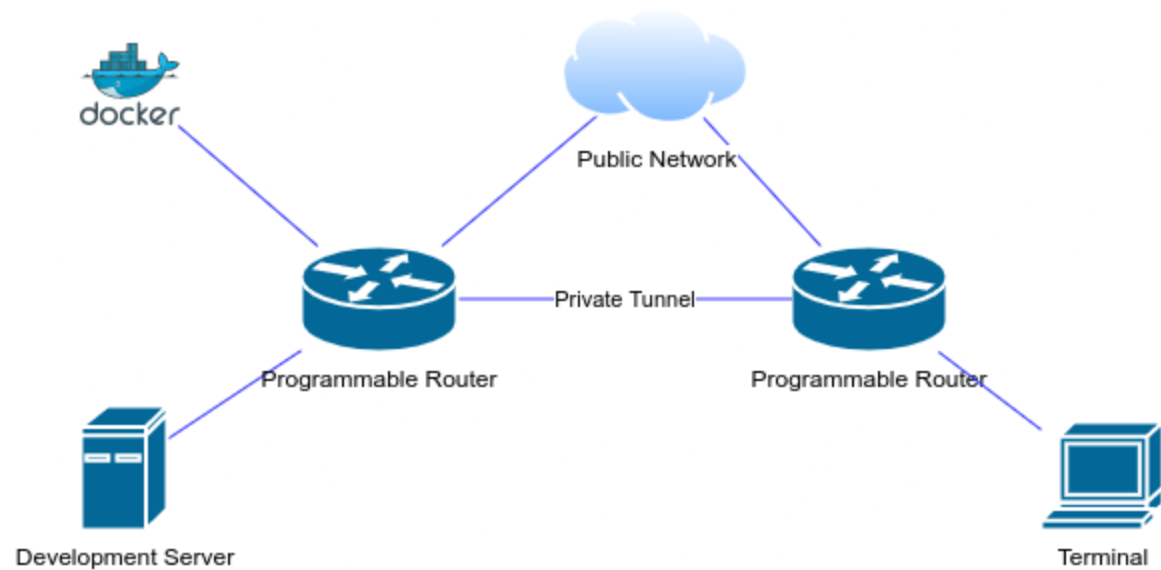


MODUL C

NETDEVOPS

A small group of programmers is starting to adopt Docker to containerize their services. Their network infrastructure is usually configured by calling the APIs from a programming language. Recently their netdevops engineer has gotten a long paid leave, you need to take over his responsibility.

Topology





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
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