LOMBA KOMPETENSI SISWA
SMK TINGKAT NASIONAL KE-29
TAHUN TAHUN 2021

TEST PROJECT
MODUL B – NETWORK SYSTEMS

BIDANG LOMBA

TEKNOLOGI INFORMASI SISTEM ADMINISTRASI JARINGAN

IT NETWORK SYSTEMS ADMINISTRATION

DESCRIPTION OF PROJECT

You have been given access by your colleague to access some networking devices and servers, the physical topology already installed in the data center. Before doing work, please review the topology and then read this document carefully. Make sure that the switching, routing, and connectivity work properly. Some tips for you after reading the documentation and combining it with your background experience, work step by step, make productive work time and do the best.

INSTRUCTION

- Configure device only use console cable
- Check & Configure IP Address according to topology and addressing table
    - All host and network device must be configured IP including sub-interface and Native VLAN
    - Make sure all switch configured IP Address in the interface VLAN 99 including Switch Layer 3
    - All hosts must be access webiste itnsa.id with IP DNS 3.3.3.3
- Make sure configuration S1, S2 and S3
    - VLAN Configuration

VLAN	Name	Interfaces
91	Manager	Fa0/5 - Fa0/8
92	Engineer	Fa0/9 - Fa0/12
93	Support	Fa0/13 - Fa0/16
94	Server	Fa0/1, Fa0/2, Fa0/17, Fa0/18
99	Management	{ *Native VLAN* }

    - Etherchannel Configuration with LACP mode Active.

Port Channel	Device	Port Connection
1	S2 <> S3	Fa0/23 - Fa0/23 Fa0/24 - Fa0/24
2	S1<>S2	Fa0/21 - Fa0/21 Fa0/22 - Fa0/22
3	S3 <> SWC-2	Fa0/19 - Fa0/19 Fa0/20 - Fa0/20
4	S1<>SWC-1	Fa0/19 - Fa0/19 Fa0/20 - Fa0/20

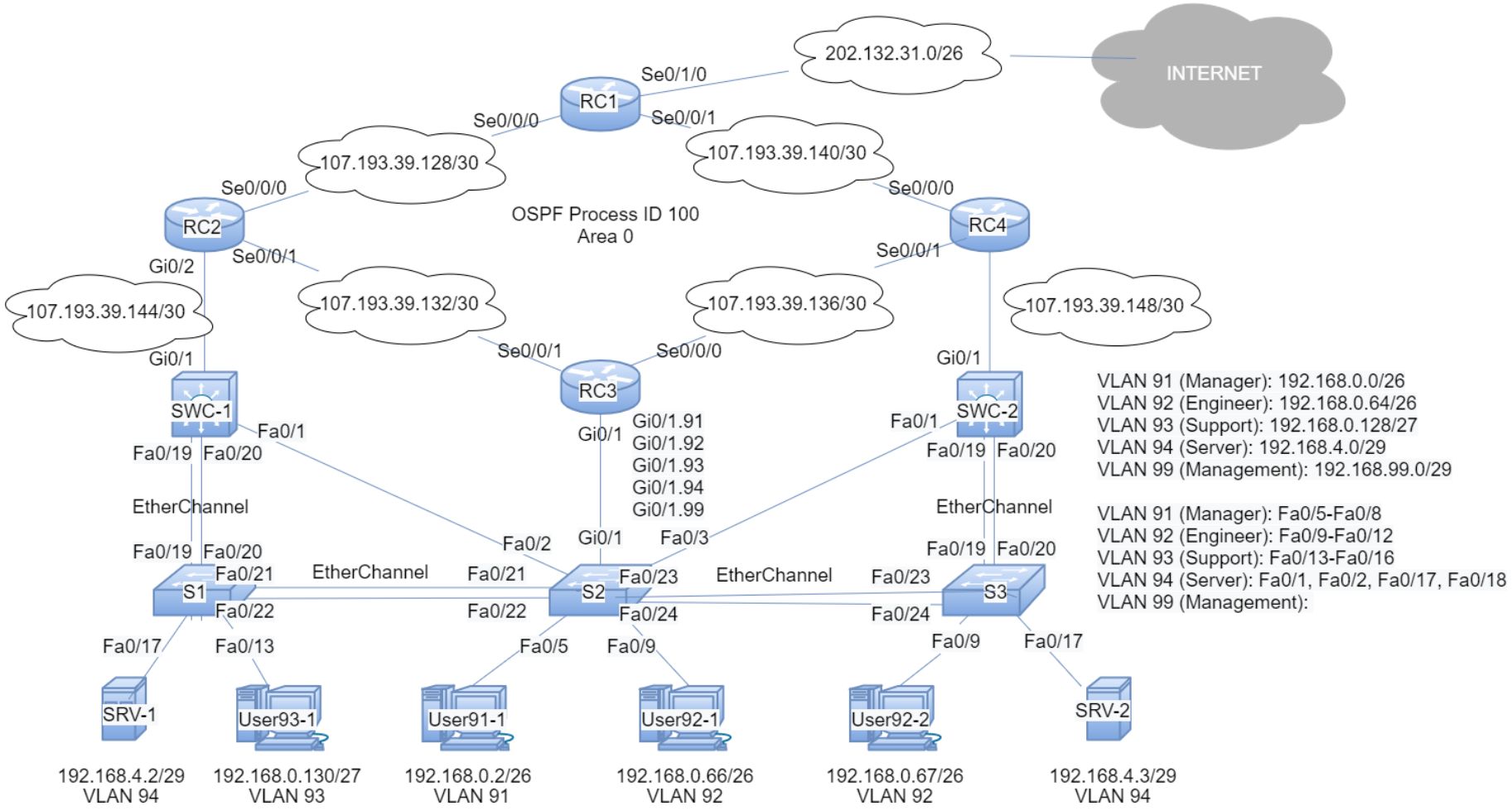
    - Port-Security in the active access ports to allow a maximum of 3 MAC addresses with violation drop packet and generate a syslog message.

- Routing OSPF
    - The routers that participate in exchanging OSPF routing information are RC1, RC2, RC3, RC4, SWC-1 dan SWC-2.
    - Process ID: 73.
    - Make sure all ospf routers get the default route from RC1.
        - Next hop for default route RC1 is 202.132.31.30
    - RC1 should get network information for vlan 91, 92, 93 and 94.

ADDRESSING TABLE

Device	Interface	IP Address / Prefix	Default Gateway
RC1	Ser0/1/0	202.132.31.1/26	-
	Ser0/0/0	107.193.39.129/30	-
	Ser0/0/1	107.193.39.141/30	-
RC2	Ser0/0/0	107.193.39.130/30	-
	Ser0/0/1	107.193.39.133/30	-
	GI0/0	107.193.39.145/30	-
RC3	Ser0/0/0	107.193.39.137/30	-
	Ser0/0/1	107.193.39.134/30	-
	GI0/1.91	192.168.0.1/26	-
	GI0/1.92	192.168.0.65/26	-
	GI0/1.93	192.168.0.129/27	-
	GI0/1.94	192.168.4.1/29	-
	GI0/1.99	192.168.99.1/29	-
RC4	Ser0/0/0	107.193.39.142/30	-
	Ser0/0/1	107.193.39.138/30	-
SWC-1	Gi0/1	107.193.39.146/30	-
	VLAN 99	192.168.99.2/29	192.168.99.1
SWC-2	Gi0/1	107.193.39.150/30	-
	VLAN 99	192.168.99.3/29	192.168.99.1
S1	VLAN 99	192.168.99.4/29	192.168.99.1
S2	VLAN 99	192.168.99.5/29	192.168.99.1
S3	VLAN 99	192.168.99.6/29	192.168.99.1
SRV-1	Fa0	192.168.4.2/29	192.168.4.1
SRV-2	Fa0	192.168.4.3/29	192.168.4.1
User93-1	Fa0	192.168.0.130/27	192.168.0.129
User91-1	Fa0	192.168.0.2/26	192.168.0.1
User92-1	Fa0	192.168.0.66/26	192.168.0.65
User92-2	Fa0	192.168.0.67/26	192.168.0.130

TOPOLOGY


202.132.31.0/26
INTERNET
Se0/1/0
RC1
Se0/0/0
Se0/0/1
107.193.39.128/30
107.193.39.140/30
Se0/0/0
Se0/0/0
RC2
RC4
OSPF Process ID 100
Area 0
Gi0/2
Se0/0/1
Se0/0/1
107.193.39.144/30
107.193.39.132/30
107.193.39.136/30
107.193.39.148/30
Gi0/1
Se0/0/1
Se0/0/0
Gi0/1
RC3
SWC-1
SWC-2
Fa0/1
Gi0/1.91
Gi0/1.92
Gi0/1.93
Gi0/1.94
Gi0/1.99
Fa0/1
Fa0/19 Fa0/20
Fa0/19 Fa0/20
EtherChannel
EtherChannel
Fa0/19 Fa0/20
Fa0/2
Gi0/1
Fa0/3
Fa0/19 Fa0/20
Fa0/21
Fa0/21
Fa0/23
Fa0/23
S1
EtherChannel
S2
EtherChannel
S3
Fa0/22
Fa0/22
Fa0/24
Fa0/24
Fa0/17
Fa0/13
Fa0/5
Fa0/9
Fa0/9
Fa0/17
SRV-1
User93-1
User91-1
User92-1
User92-2
SRV-2
192.168.4.2/29
VLAN 94
192.168.0.130/27
VLAN 93
192.168.0.2/26
VLAN 91
192.168.0.66/26
VLAN 92
192.168.0.67/26
VLAN 92
192.168.4.3/29
VLAN 94
VLAN 91 (Manager): 192.168.0.0/26
VLAN 92 (Engineer): 192.168.0.64/26
VLAN 93 (Support): 192.168.0.128/27
VLAN 94 (Server): 192.168.4.0/29
VLAN 99 (Management): 192.168.99.0/29
VLAN 91 (Manager): Fa0/5-Fa0/8
VLAN 92 (Engineer): Fa0/9-Fa0/12
VLAN 93 (Support): Fa0/13-Fa0/16
VLAN 94 (Server): Fa0/1, Fa0/2, Fa0/17, Fa0/18
VLAN 99 (Management):