

In-Course Assessment Examination – 01
TICT 3214(P) – Advanced Computer Networks and Administration (Practical)
Department of Information and Communication Technology
Faculty of Technological Studies
University of Vavuniya

Duration: 1 hour 30 minutes

Instruction:

- Save your files in a folder named with your Index Number.
- Submit your configuration commands in text file with your index number.
- Take screenshots of the outputs (if any) and save it in a Word file in that folder.
- Use 2960 Switch and 4331 Router for the implementation in Cisco Packet Tracer.

Company XYZ is planning to implement a Local Area Network (LAN) with multiple VLANs in order to isolate the communication among different servers. The LAN consists of network devices that include a Router, three Layer-2 switches, Mail Server, Web Server and Database Server. The proposed network diagram is shown in Figure 1.

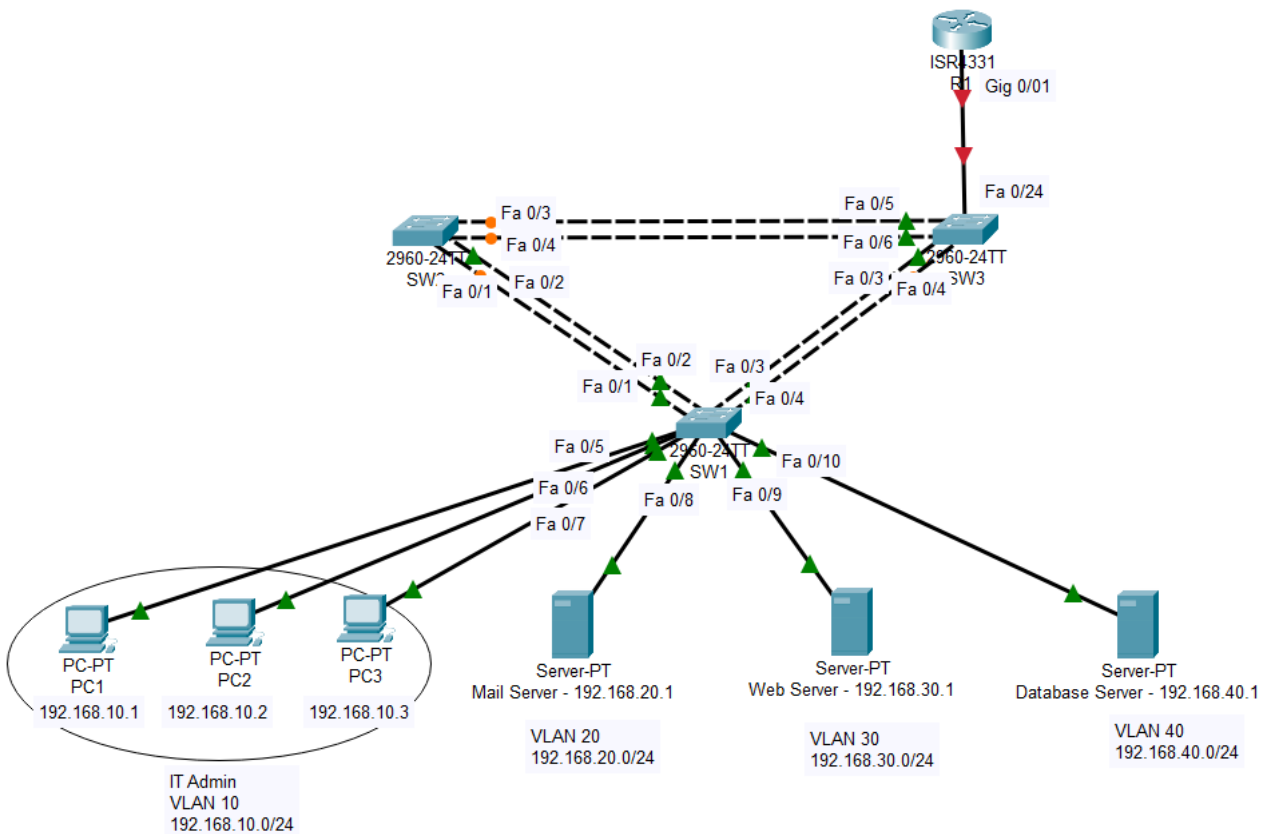


Figure 1

VLAN Information and the port assignment on the bottom switch (SW1) is given below;

VLAN ID	VLAN Name	Switch Port
10	ITAdm	Fa 0/5, Fa 0/6, Fa 0/7
20	MailSVR	Fa 0/8
30	WebSVR	Fa 0/9
40	DBSVR	Fa 0/10

Table 1

VLAN Gateway information is given below;

VLAN ID	Default Gateway
10	192.168.10.100
20	192.168.20.100
30	192.168.30.100
40	192.168.40.100

Table 2

Note: - Port Gig 0/0/1 on Router (R1) is connected to the port Fa 0/24 on Switch (SW3).

1. Build the LAN as shown in the diagram using packet tracer.
2. Assign hostnames of the switches as SW1, SW2, SW3 and the Router as R1.
3. Configure the IP addresses on PCs and Servers as shown in the diagram.
4. Create VLANs with respective names on all the switches (SW1,2 and 3).
5. Assign ports to respective VLANs on the bottom switch (SW1) based on the information given in Table 1.
6. Links between the switches and Router should carry multiple VLAN traffic.
7. Configure Layer-2 EtherChannel manually between the switches.
8. As a Network Engineer, you are asked do the necessary configurations so that IT Admin users should be able to communicate with all three servers (Mail/Web/Database Servers).