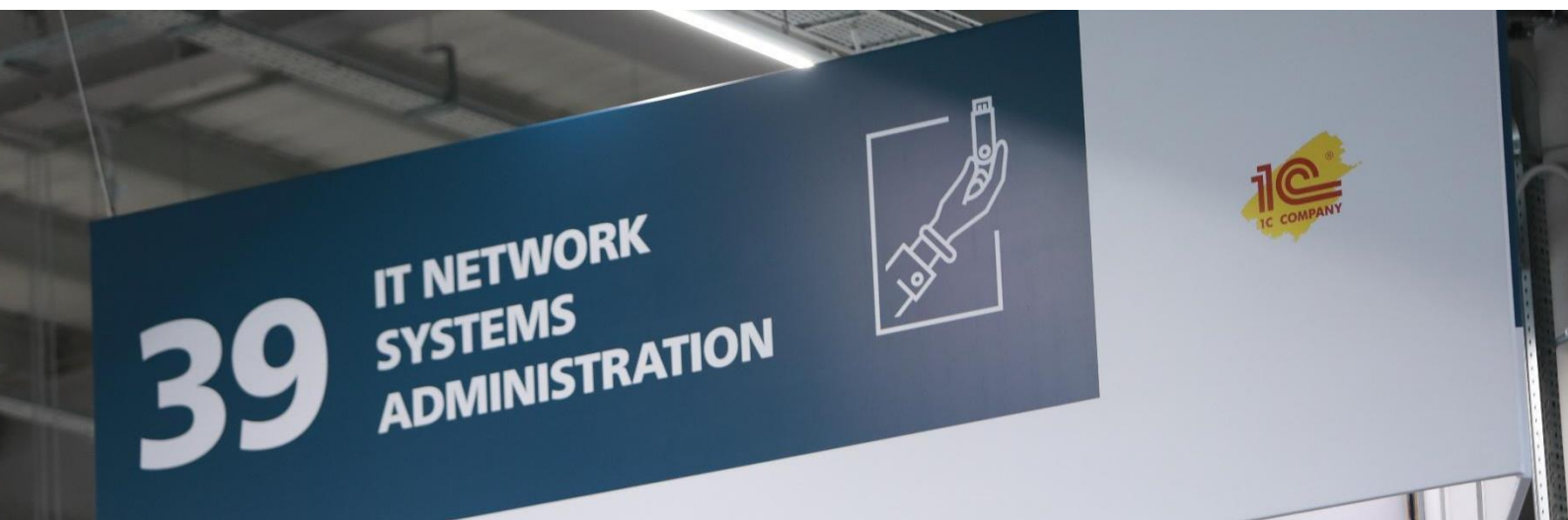


**LOMBA KOMPETENSI SISWA
SEKOLAH MENENGAH KEJURUAN
TINGKAT PROVINSI JAWA TENGAH TAHUN 2023**

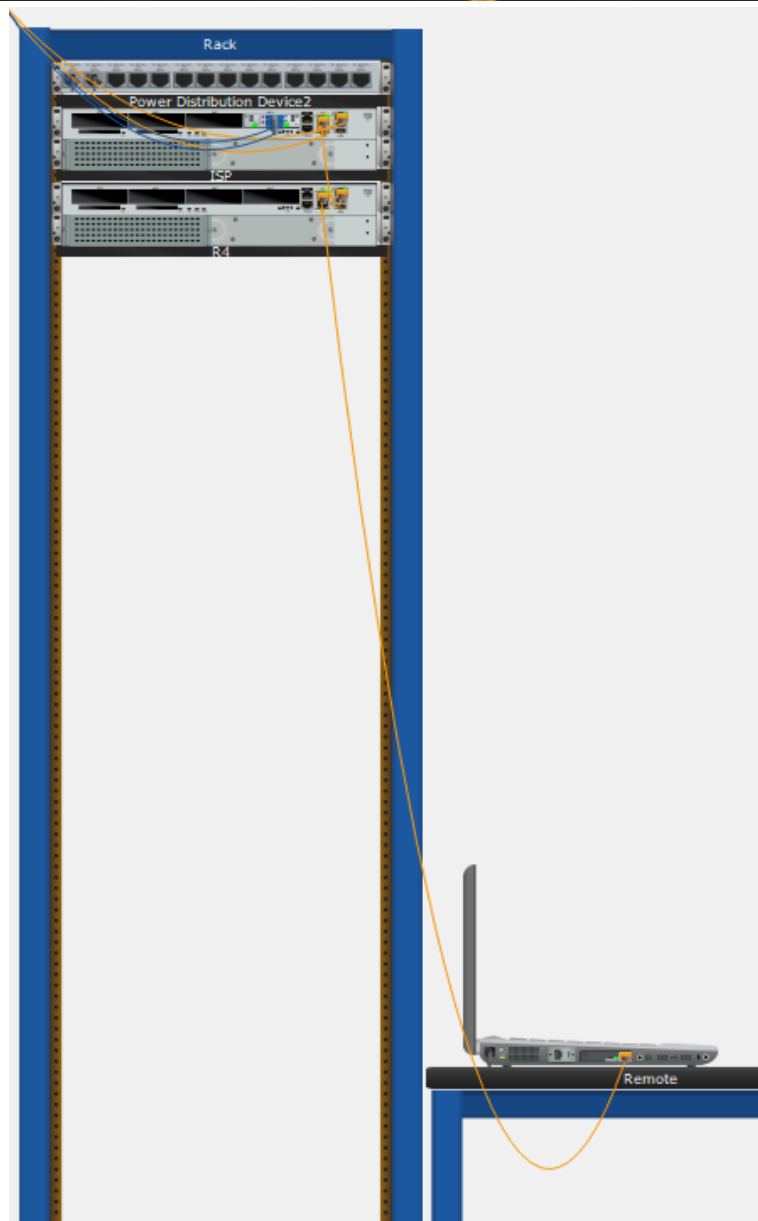


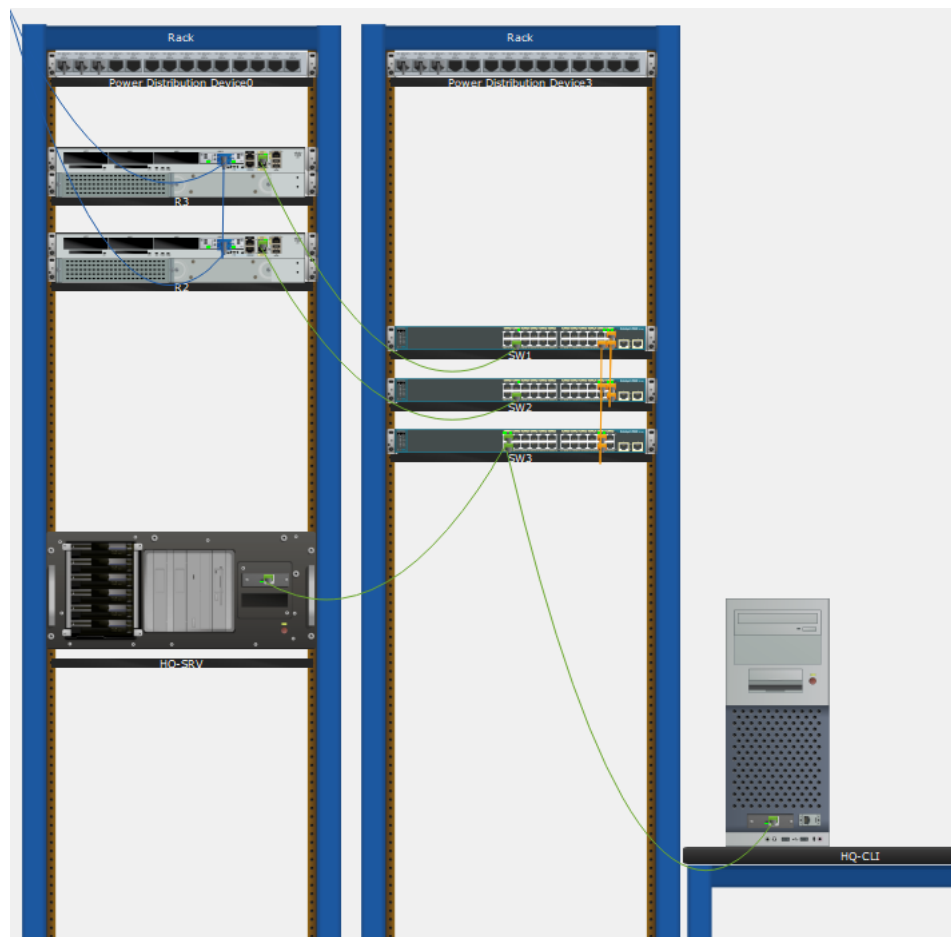
**IT NETWORK
SYSTEMS ADMINISTRATION**



**Test Project
MODUL B – NETWORK TROUBLESHOOTING
(CISCO PACKET TRACER)**







Tasks

- No detailed information will be given in this document. You need to analyze the existing configuration.
- The existing configuration is mostly in correct condition.
- You need to fix the following issues. Note that each issues may have different weight and difficulty.
 - Layer 2 loops is happening between SW1, SW2, and SW3.
 - Internet access from HQ-CLI is not working.
 - Remote laptop doesn't have any access to outside network.
 - Intra-subnet IPv6 is working correctly, but not for the Inter-subnet.
 - BR-CLI2 can't reach some external addresses.
 - A note from a junior engineer: VLANs are not propagated between switches but I do not know why.
 - Some DHCP clients can't lease address.

Engineering Notes

- Username: admin
- Password: Skills39
- VLANs propagated via Vlan Trunking Protocol using version 2
- VLAN 10: HQ10
- VLAN 20: HQ20
- OSPF process ID 5
- OSPF backbone area only
- HSRP VLAN 10:
 - Group number 104
 - Virtual IP 192.168.10.254
 - Router with higher priority should immediately take over as active router.
- HSRP VLAN 20:
 - Group number 20
 - Virtual IP 192.168.20.254
 - Router with higher priority should immediately take over as active router.
- First ten addresses should not leased to clients

Configuration Table

Device	Interface	Address
HQ-SRV	Fe0	192.168.10.1/24
		2001:1010::1/64
HQ-CLI	Ethernet0	DHCP
SW1	Vlan10	192.168.10.10/24
	Vlan20	2001:1010::10/64
SW2	Vlan10	192.168.20.10/24
	Vlan20	2001:1010::20/64
SW3	Vlan10	192.168.10.30/24
	Vlan20	2001:1010::30/24
R3	Gig0/1.10	192.168.10.253/24
	Gig0/1.20	2001:1010::253/64
	Serial 0/0/0	192.168.20.253/24
	Serial 0/0/1	210.103.5.1/30
	lo 0	210.103.6.2/30
R2	Gig0/1.10	3.3.3.3/32
	Gig0/1.20	192.168.10.252/24
	Serial 0/0/1	2001:1010::252/64
	Serial 0/0/0	192.168.20.252/24
	lo 0	210.103.5.5/30
R1	Gig0/0	210.103.6.1/30
	Gig0/1	2.2.2.2/32
	lo 0	210.103.5.13/30
BR-CLI	Ethernet0	172.16.10.254/24
ISP	Serial 0/0/0	1.1.1.1/32
	Serial 0/0/1	DHCP
	Gig0/1	210.103.5.2/30
	Gig0/2	210.103.5.6/30
	Gig0/0	210.103.5.10/30
	lo 0	210.103.5.254/25
R4	Gig0/0	210.103.5.14/30
	Gig0/1	8.8.8.8/32
	lo 0	210.103.5.9/30
remote	Ethernet0	210.103.7.254/24
FW1	Gig1/1(outside)	4.4.4.4/32
	Gig1/2(inside)	210.103.5.129/25
BR-CLI2	Ethernet0	172.16.20.254/24

Network Topology

