

Operating Juniper Networks Switches in the Enterprise

9.a

Lab Diagrams



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Course Number: EDU-JUN-OJXE

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Operating Juniper Networks Switches in the Enterprise Lab Diagrams, Revision 9.a

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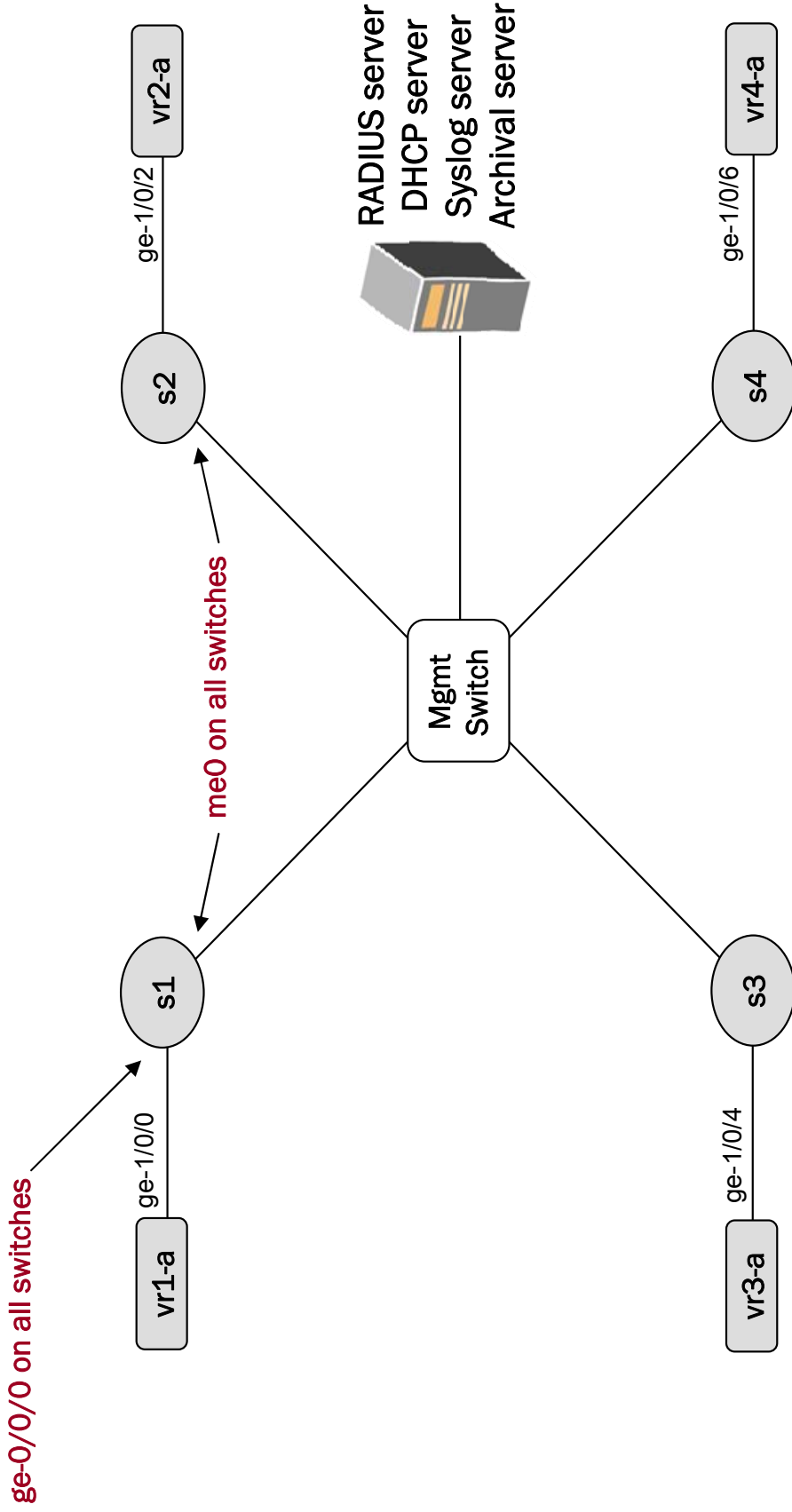
Lab Diagrams

Module A
(s1, s2, s3, s4)

Module B
(s5, s6, s7, s8)

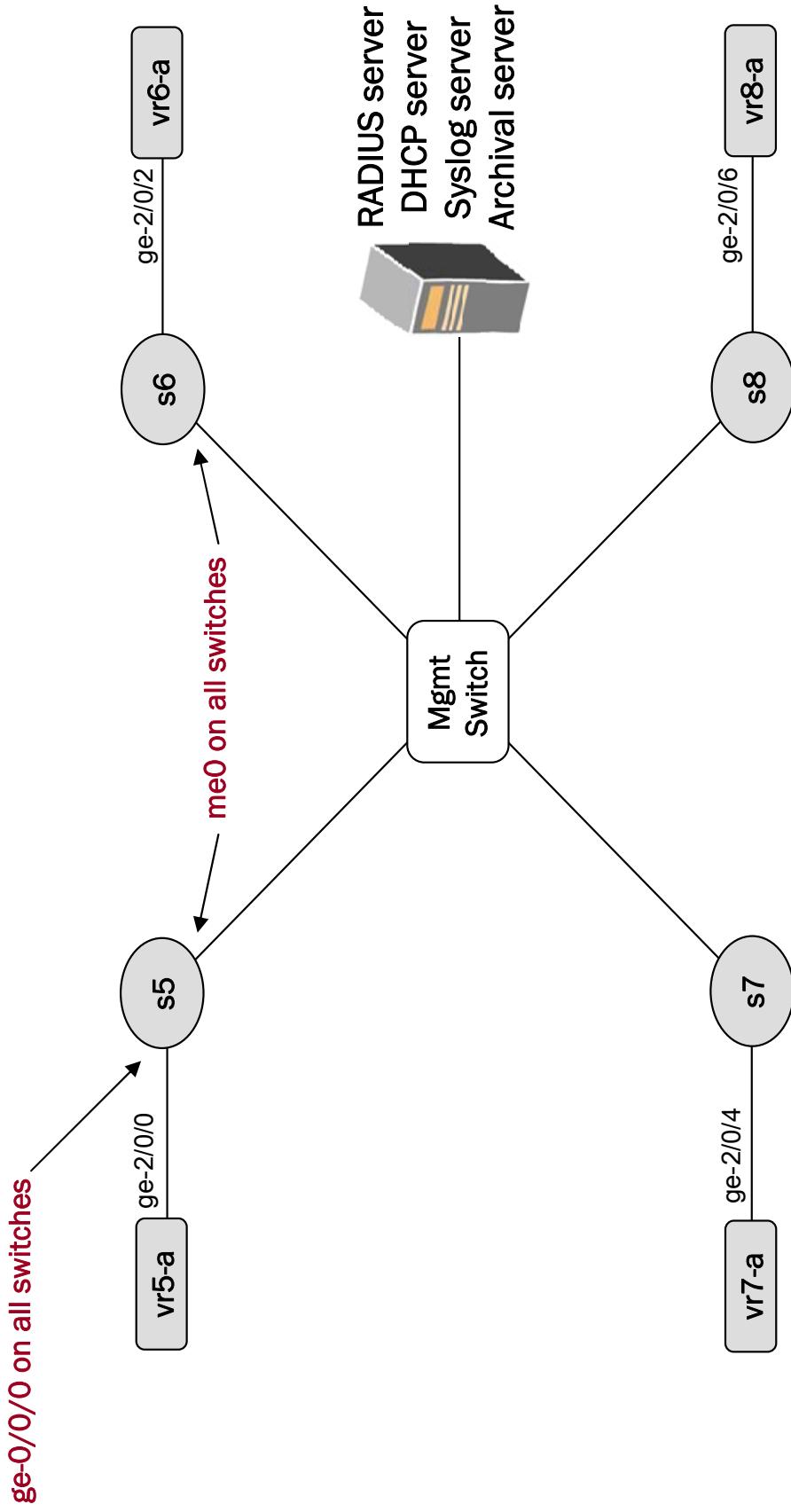
Note: Be sure you reference the correct diagram for your module.

Labs 3 and 4: Secondary Configuration and Operational Monitoring (Module A)



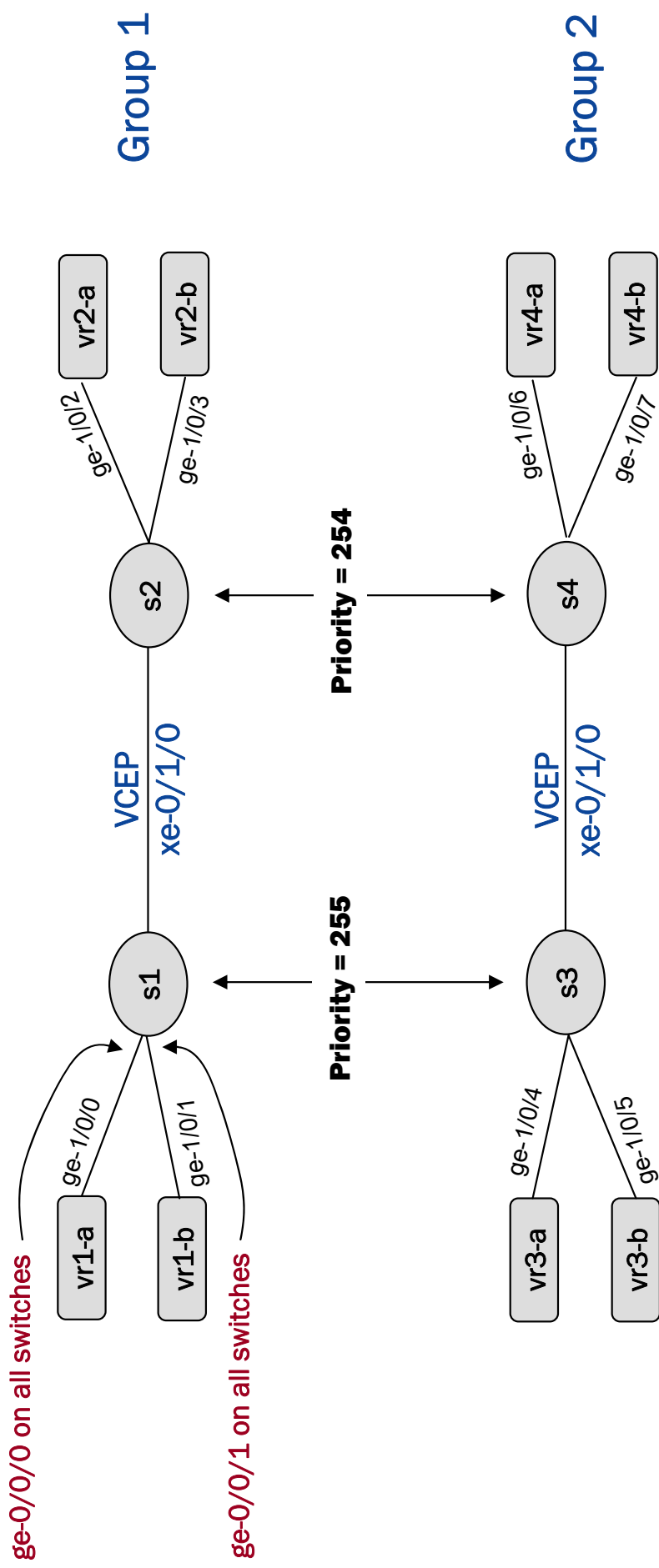
Note: J2320 with virtual routers is also connected to the management switch. Refer to management handout for details.

Labs 3 and 4: Secondary Configuration and Operational Monitoring (Module B)

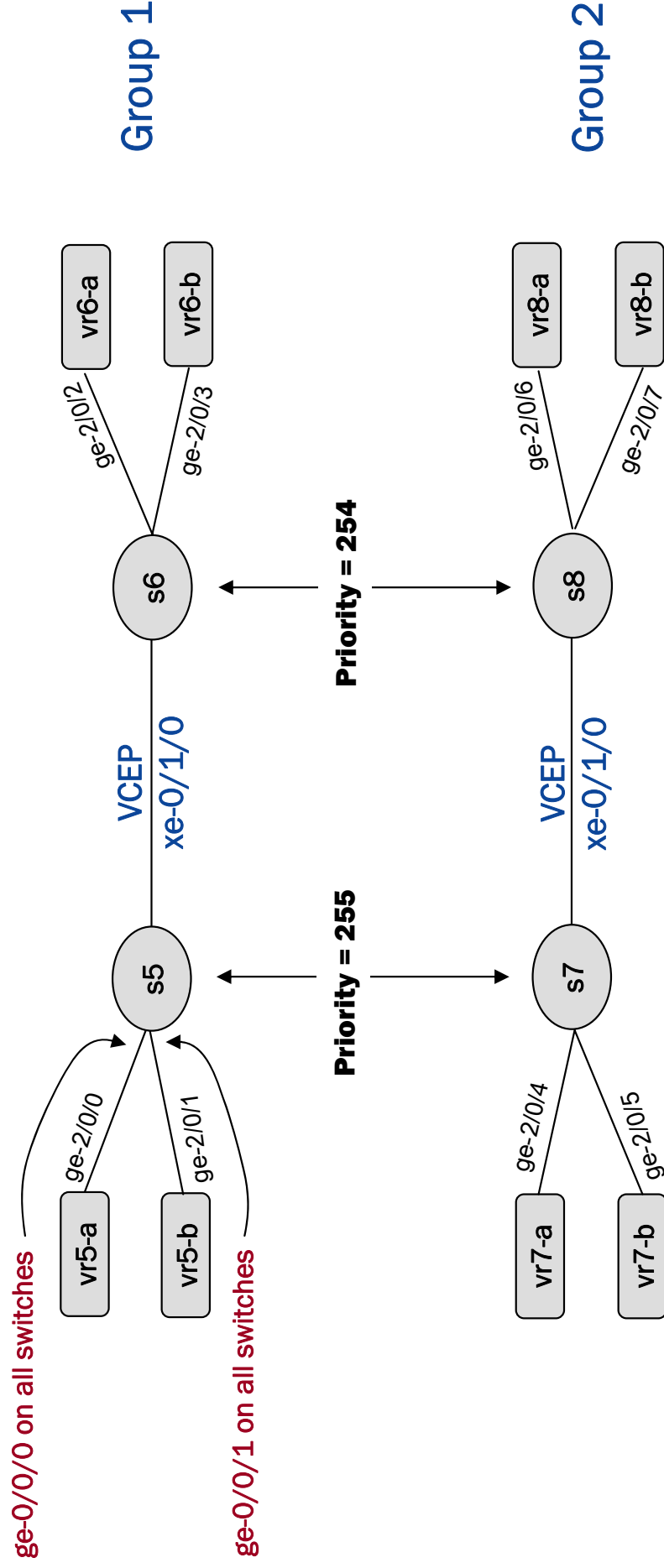


Note: J2320 with virtual routers is also connected to the management switch. Refer to management handout for details.

Lab 5: Virtual Chassis (Module A)



Lab 5: Virtual Chassis (Module B)

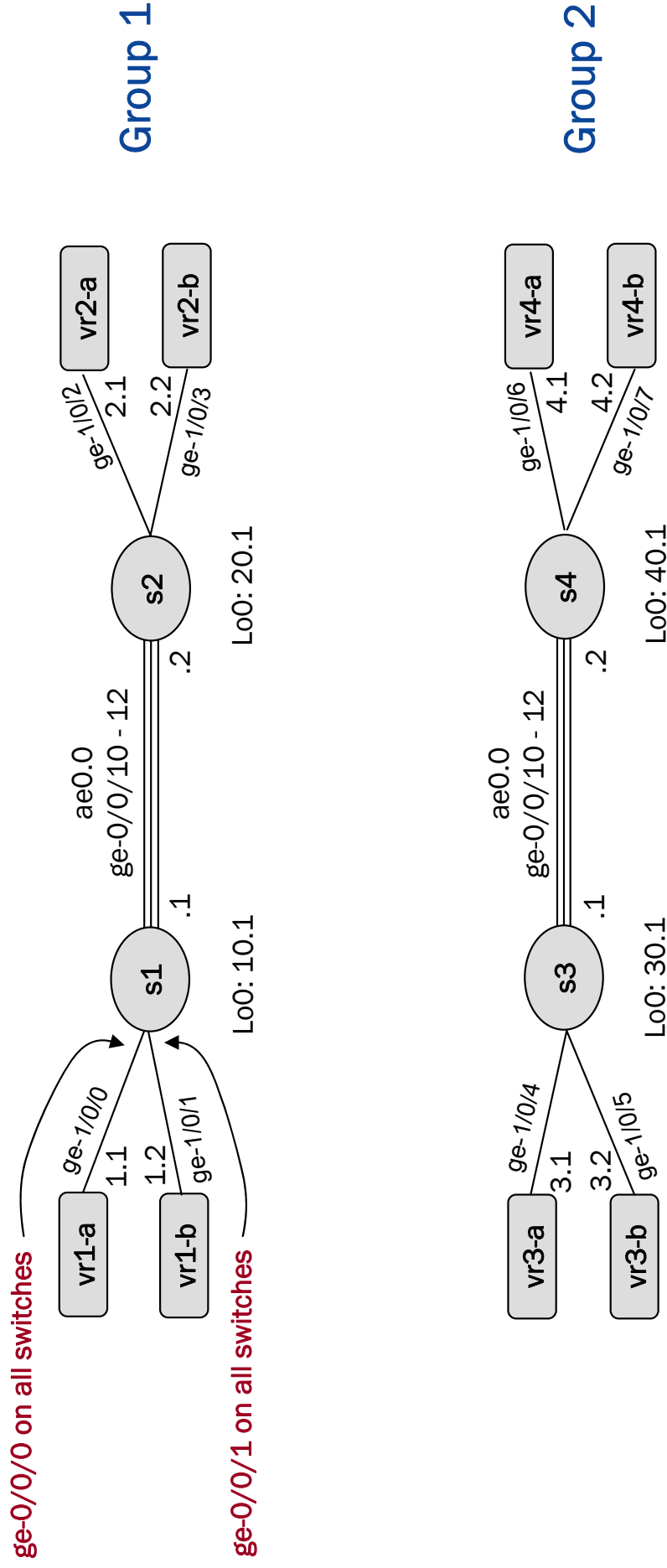


Lab 6: Interface Configuration (Module A)

Loopback addresses: 192.168.X.Y/32

LAG addresses: 172.18.35.X/30

VR interface addresses: 172.22.X.Y/24

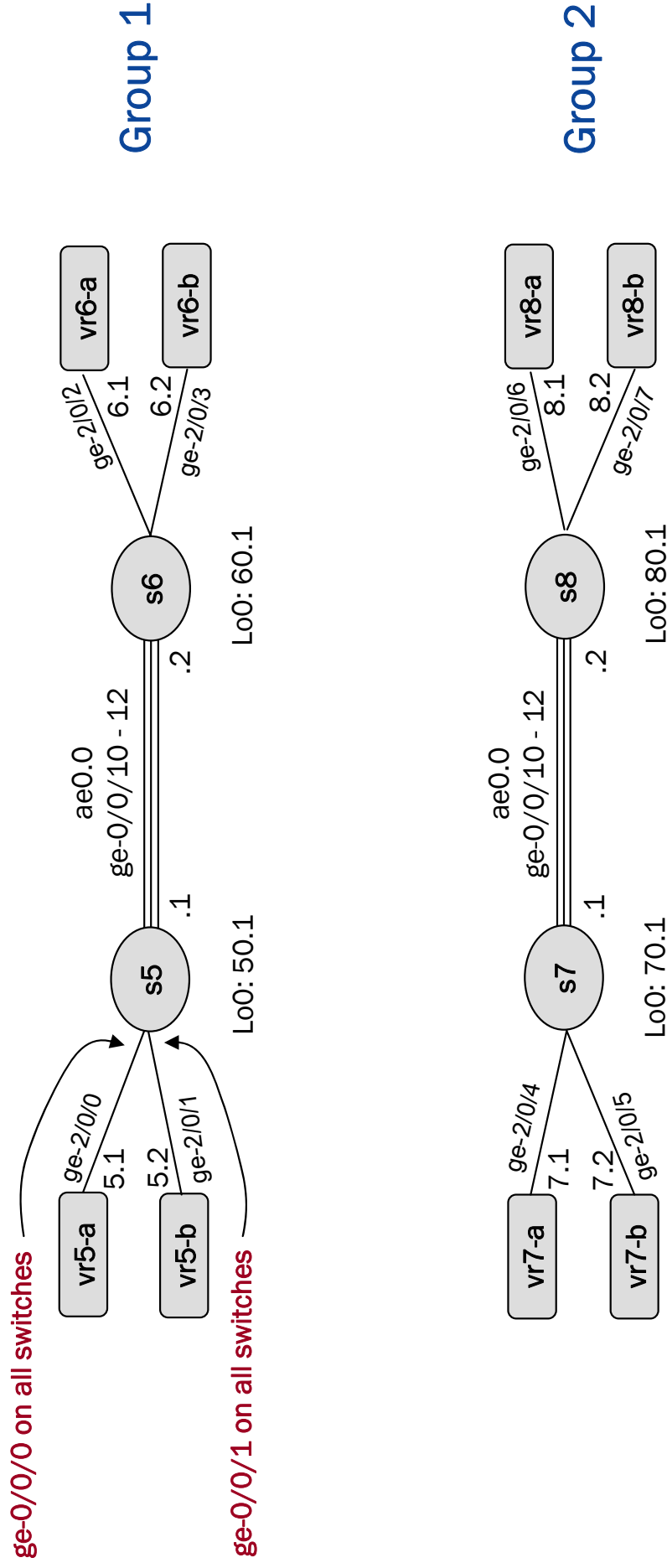


Lab 6: Interface Configuration (Module B)

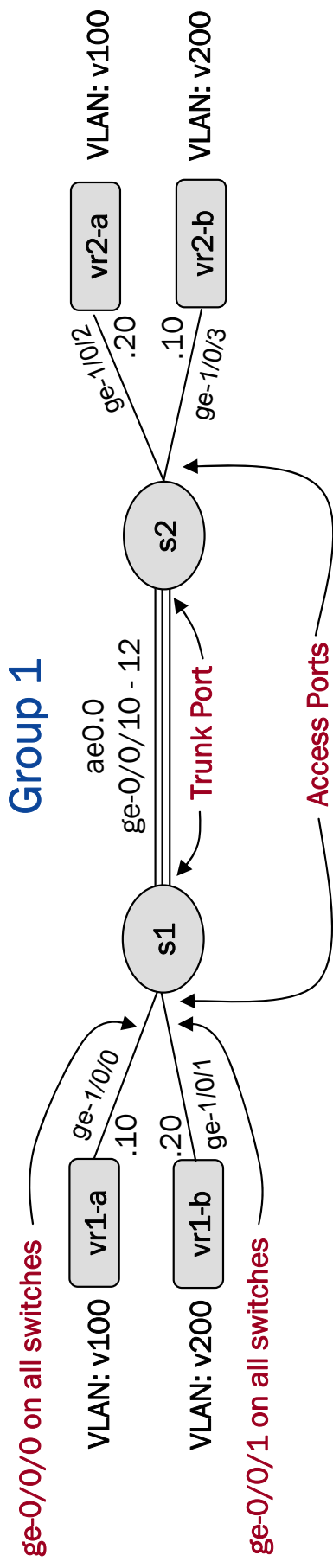
Loopback addresses: 192.168.X.Y/32

LAG addresses: 172.18.35.X/30

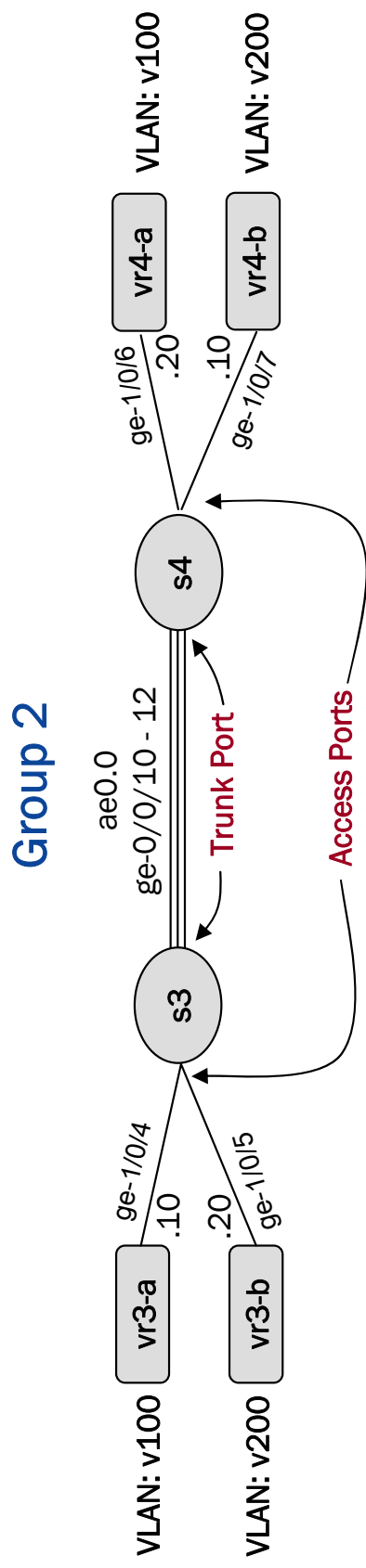
VR interface addresses: 172.22.X.Y/24



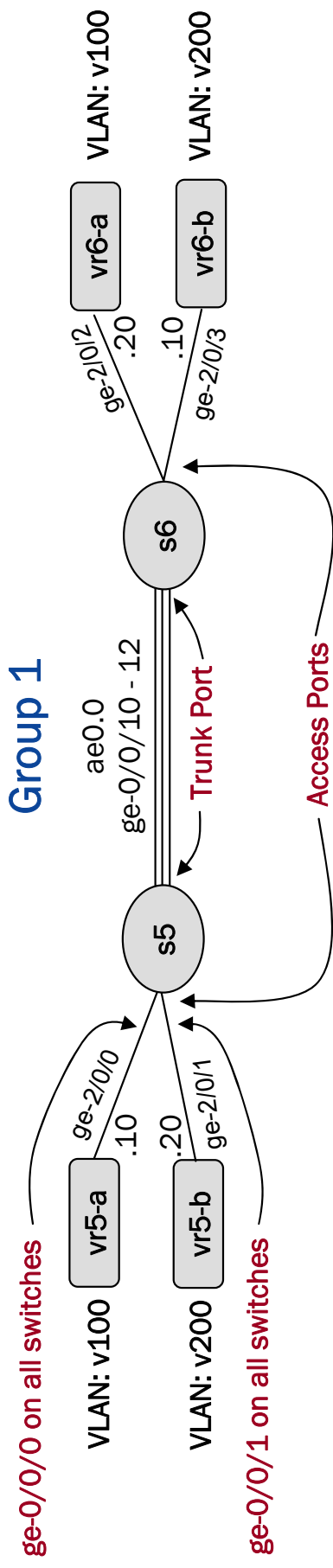
Lab 7: Ethernet Switching and VLANs (Module A)



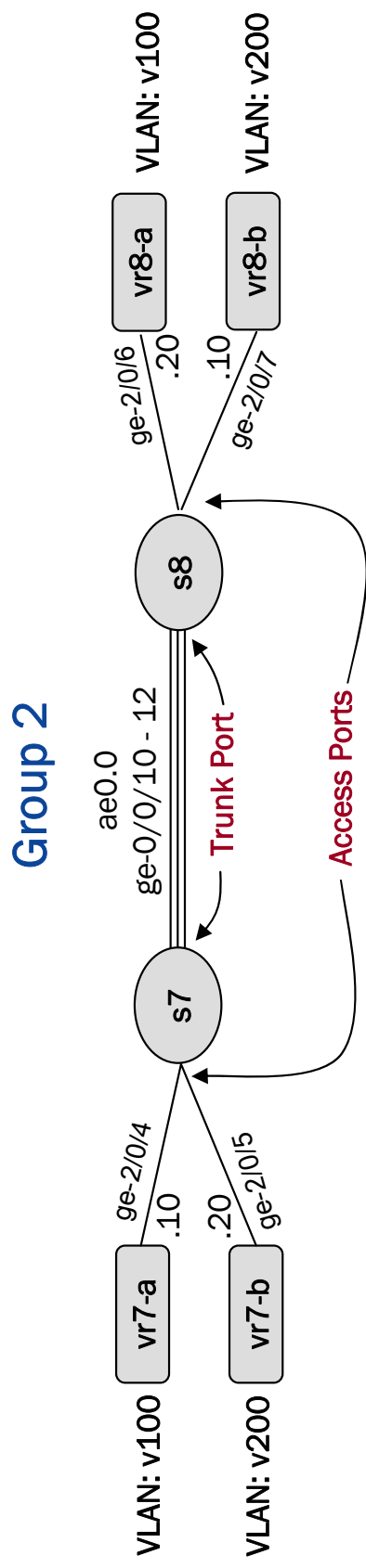
VLAN v100: VID = 100, Subnet = 172.22.100.0/24
VLAN v200: VID = 200, Subnet = 172.22.200.0/24



Lab 7: Ethernet Switching and VLANs (Module B)

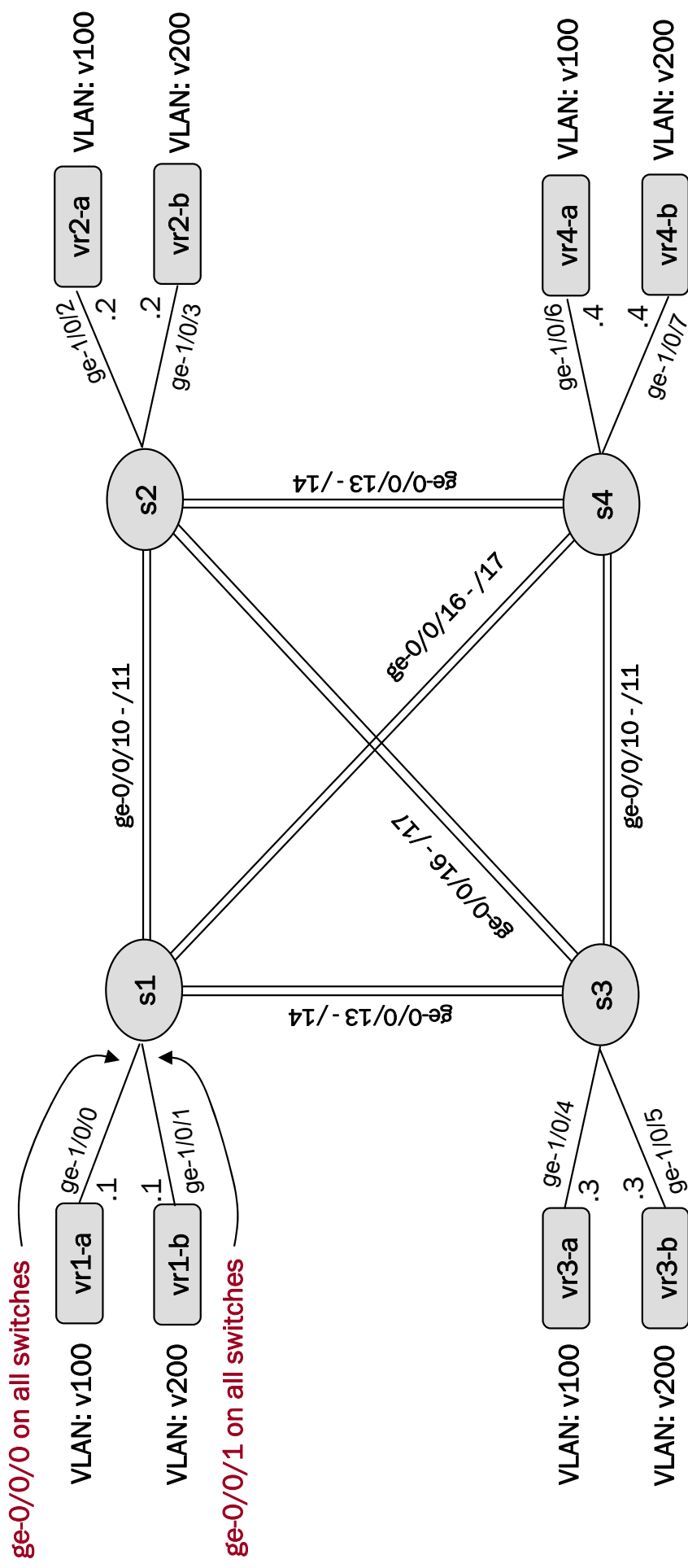


VLAN v100: VID = 100, Subnet = 172.22.100.0/24
VLAN v200: VID = 200, Subnet = 172.22.200.0/24



Lab 8, Parts 1-2: Spanning Tree Protocol (Module A)

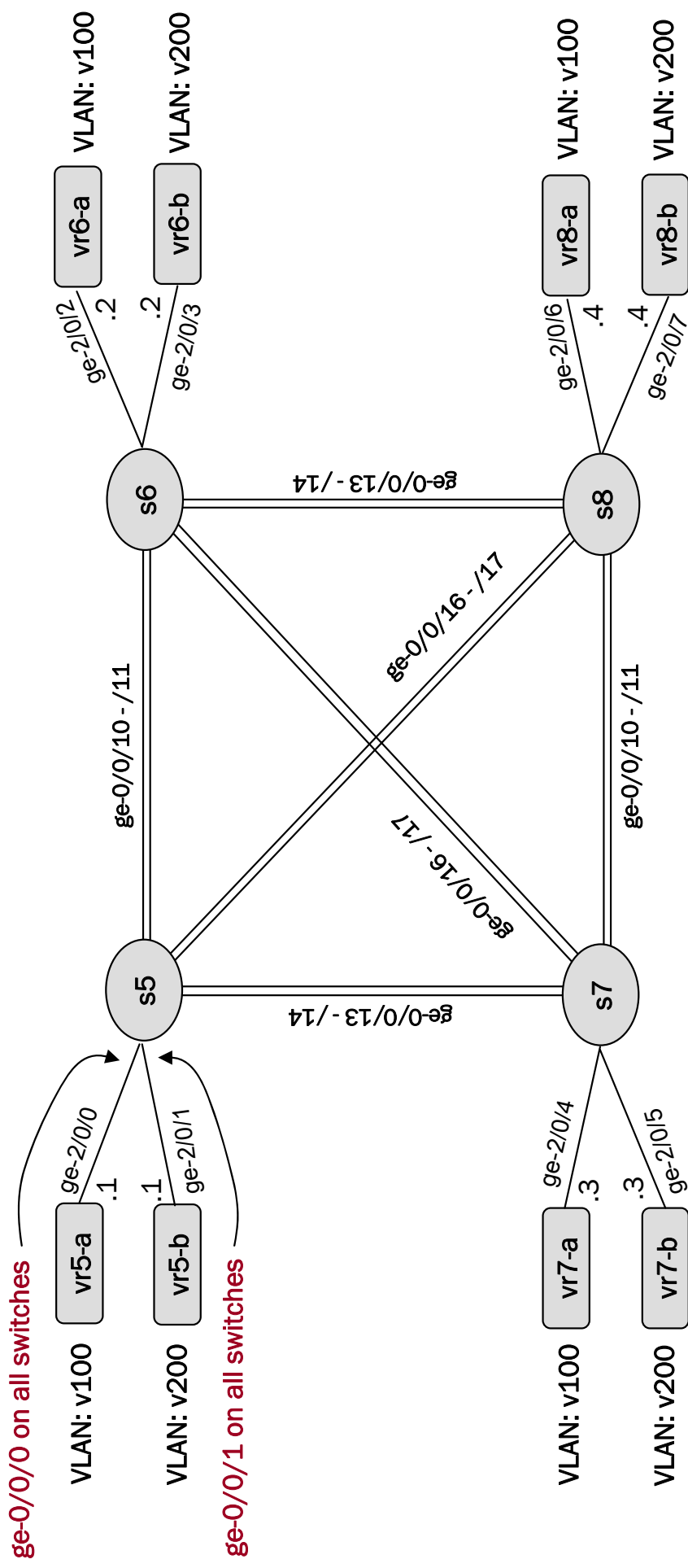
ge-0/0/0 and ge-0/0/1 = Access ports on all switches
 ge-0/0/10, /11, /13, /14, /16, and /17 = Trunk ports on all switches



VLAN v100: VID = 100, Subnet = 172.22.100.0/24
 VLAN v200: VID = 200, Subnet = 172.22.200.0/24

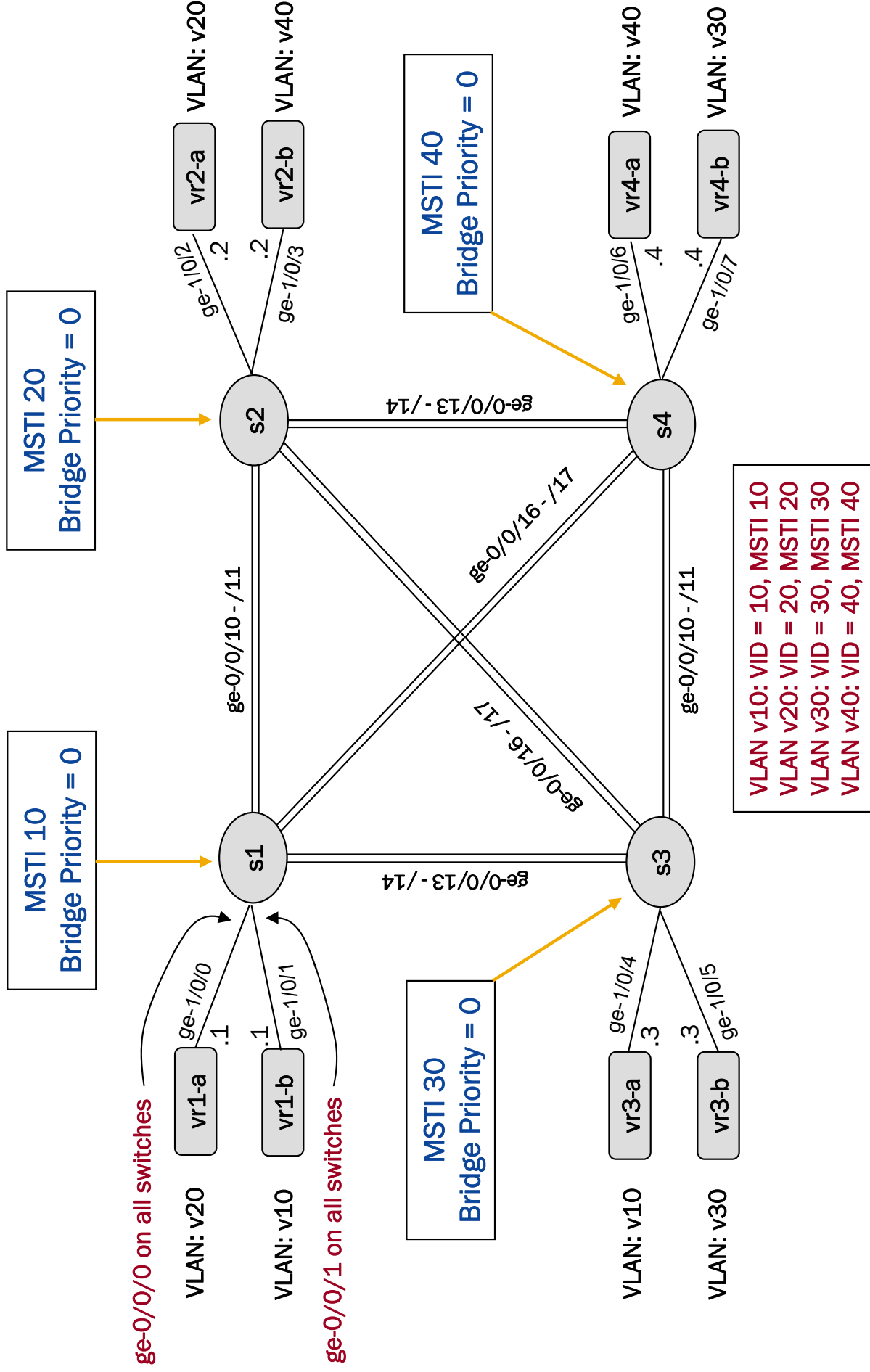
Lab 8, Parts 1-2: Spanning Tree Protocol (Module B)

ge-0/0/0 and ge-0/0/1 = Access ports on all switches
 ge-0/0/10, /11, /13, /14, /16, and /17 = Trunk ports on all switches

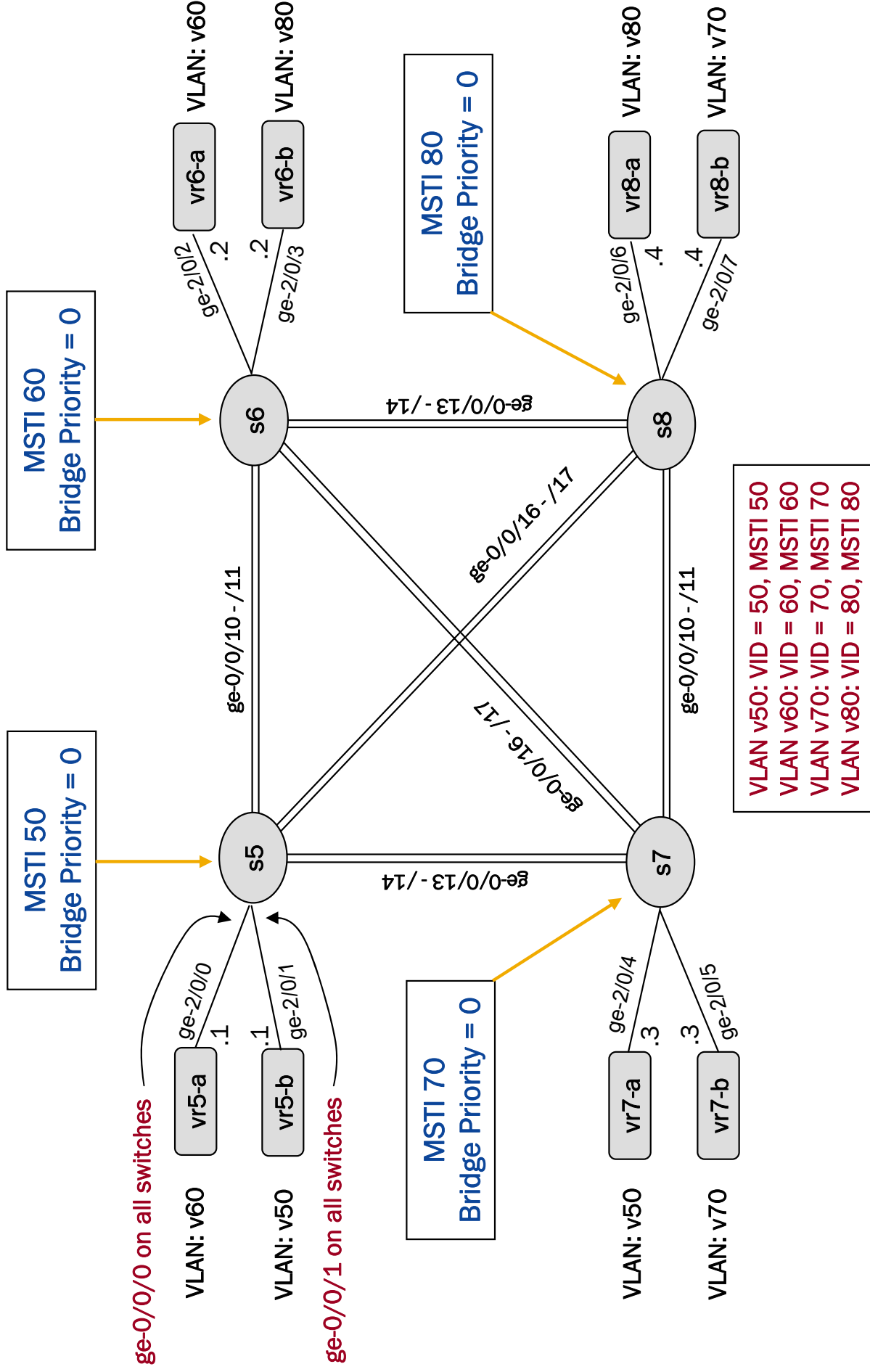


VLAN v100: VID = 100, Subnet = 172.22.100.0/24
 VLAN v200: VID = 200, Subnet = 172.22.200.0/24

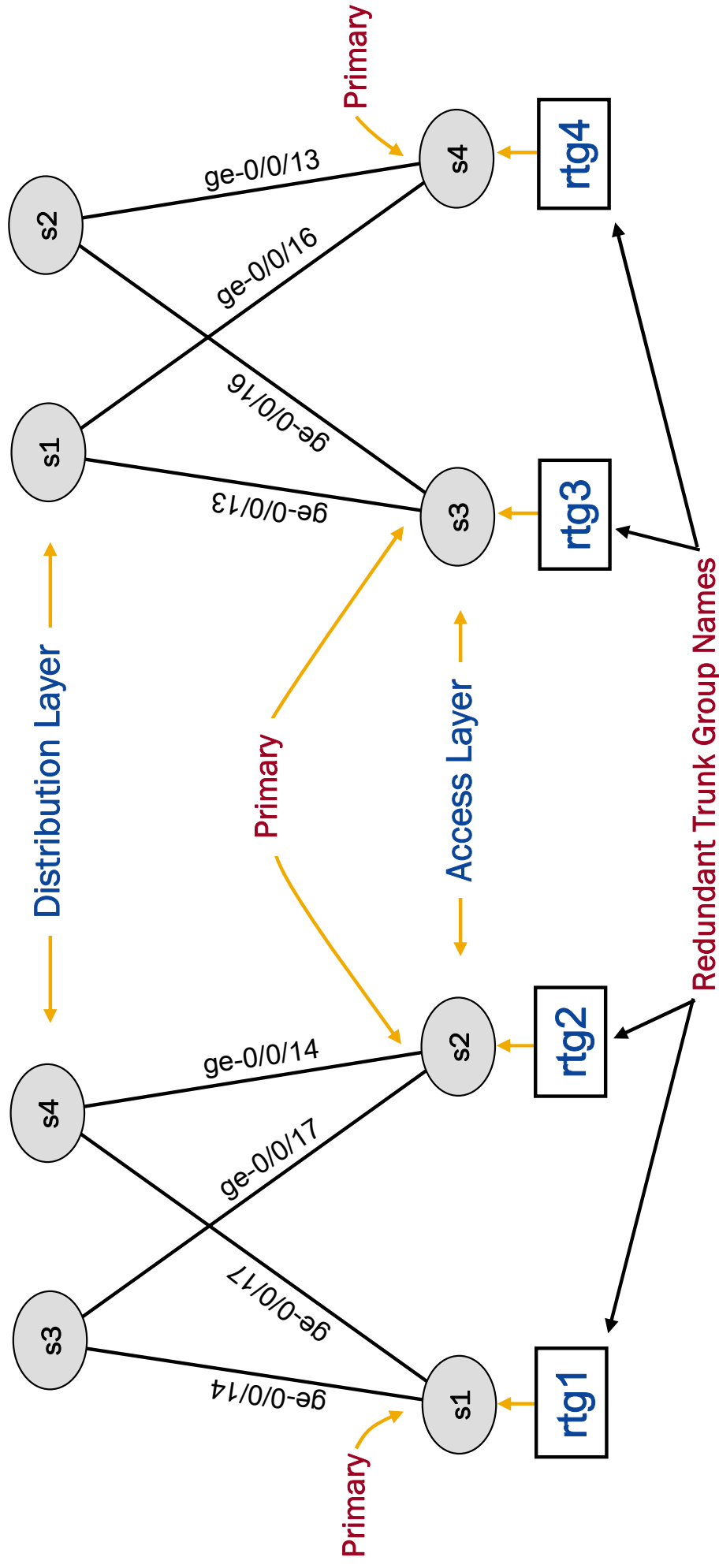
Lab 8, Part 3: Spanning Tree Protocol (Module A)



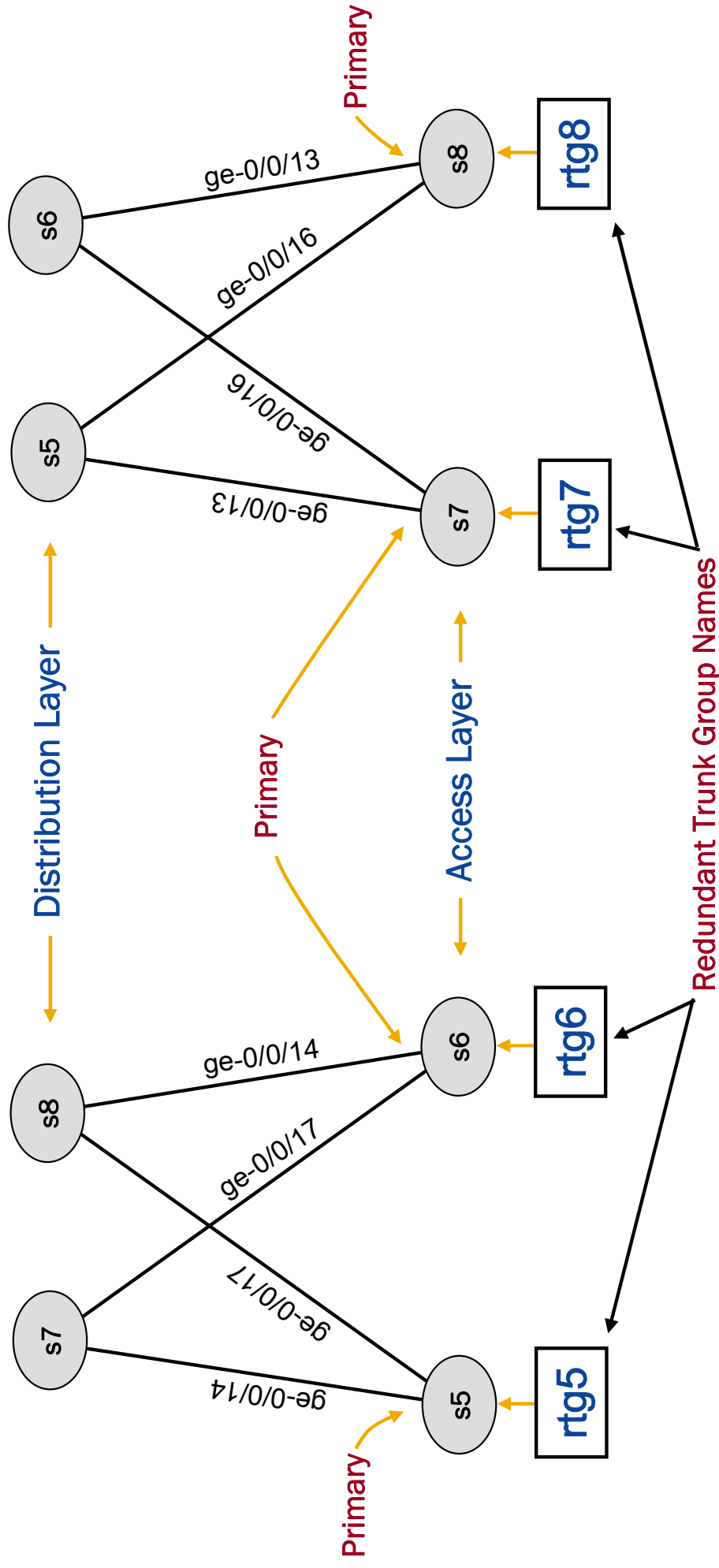
Lab 8, Part 3: Spanning Tree Protocol (Module B)



Lab 8, Part 4: Spanning Tree Protocol (Module A)

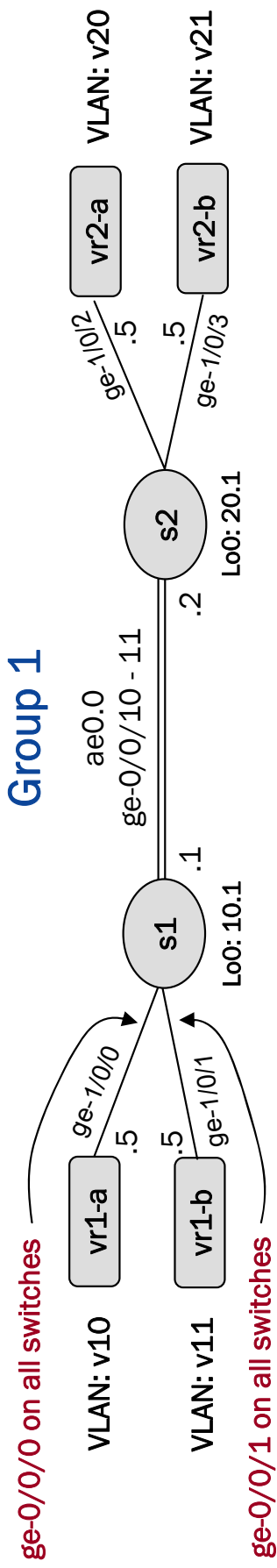


Lab 8, Part 4: Spanning Tree Protocol (Module B)

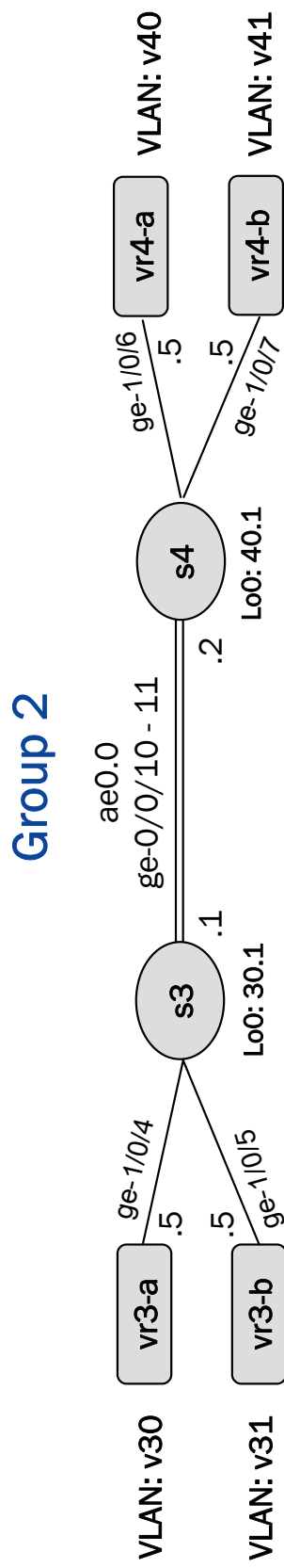


Lab 9, Parts 1–3: Inter-VLAN Routing (Module A)

Loopback Address: 192.168.X.Y/32
 LAG Addresses: 172.18.35.X/30

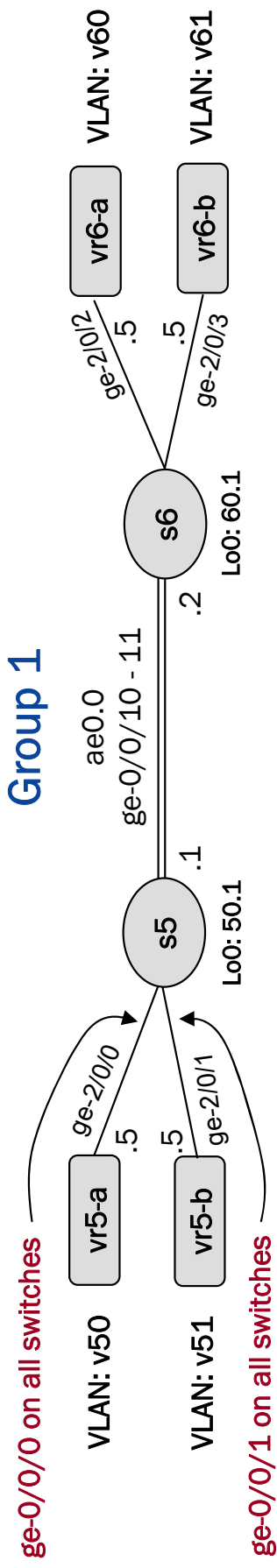


VLAN v10: VID = 10, Subnet = 172.22.10.0/24
 VLAN v11: VID = 11, Subnet = 172.22.11.0/24
 VLAN v20: VID = 20, Subnet = 172.22.20.0/24
 VLAN v21: VID = 21, Subnet = 172.22.21.0/24
 VLAN v30: VID = 30, Subnet = 172.22.30.0/24
 VLAN v31: VID = 31, Subnet = 172.22.31.0/24
 VLAN v40: VID = 40, Subnet = 172.22.40.0/24
 VLAN v41: VID = 41, Subnet = 172.22.41.0/24

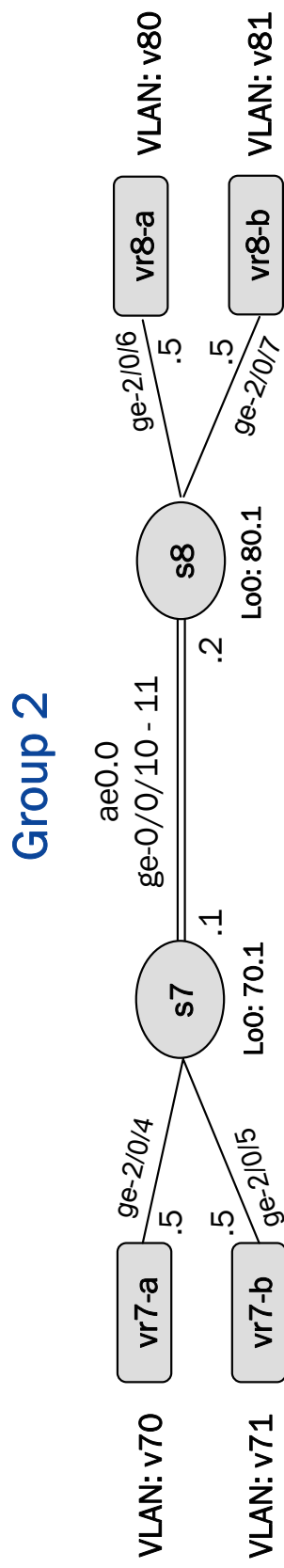


Lab 9, Parts 1–3: Inter-VLAN Routing (Module B)

Loopback Address: 192.168.X.Y/32
LAG Addresses: 172.18.35.X/30



VLAN v50: VID = 50, Subnet = 172.22.50.0/24
 VLAN v51: VID = 51, Subnet = 172.22.51.0/24
 VLAN v60: VID = 60, Subnet = 172.22.60.0/24
 VLAN v61: VID = 61, Subnet = 172.22.61.0/24
 VLAN v70: VID = 70, Subnet = 172.22.70.0/24
 VLAN v71: VID = 71, Subnet = 172.22.71.0/24
 VLAN v80: VID = 80, Subnet = 172.22.80.0/24
 VLAN v81: VID = 81, Subnet = 172.22.81.0/24

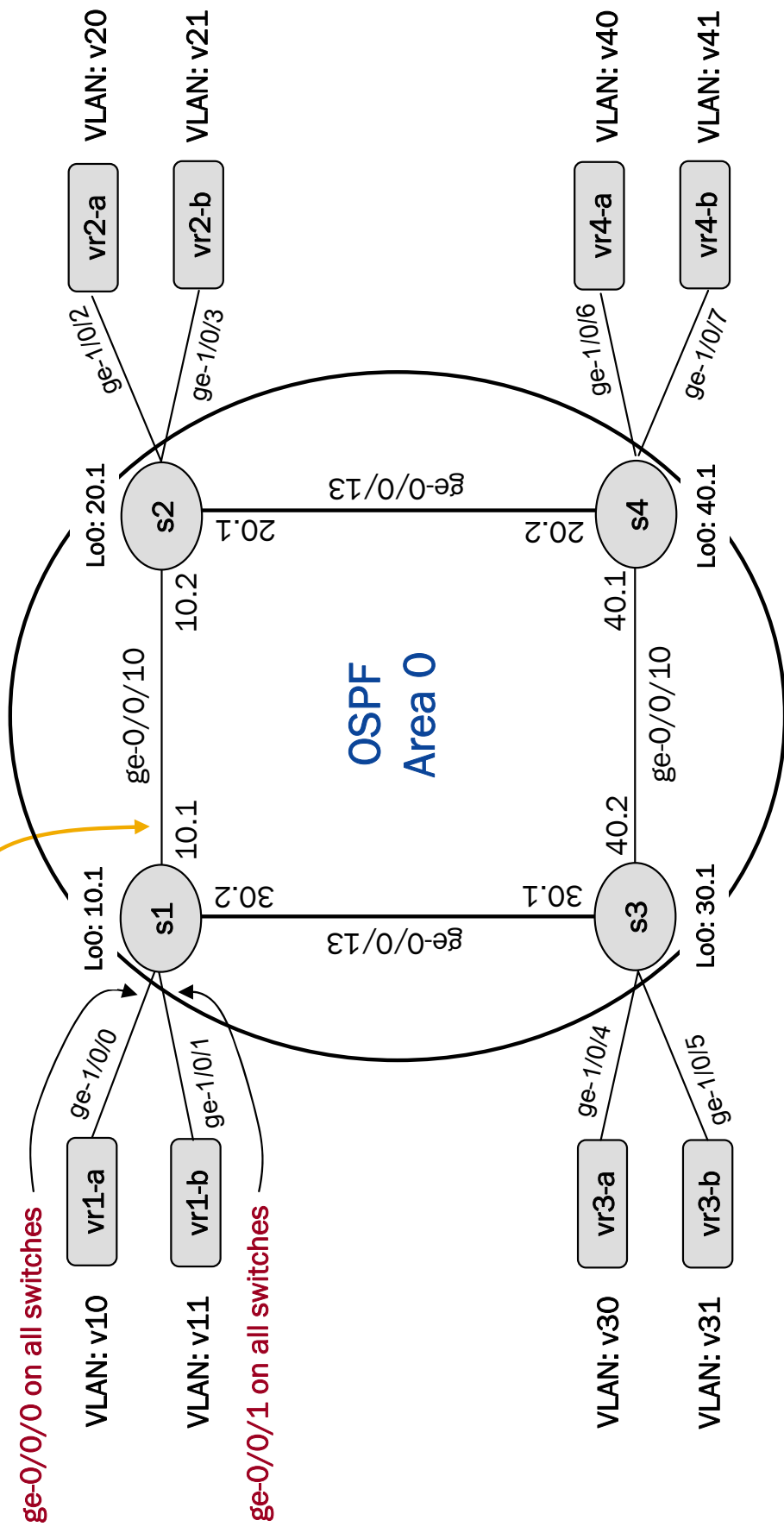


Lab 9, Part 4: Inter-VLAN Routing (Module A)

Virtual Router Addresses: 172.22.X.5/24 (X = VLAN-id value)

Loopback Address: 192.168.X.Y/32

Interface Addresses: 172.18.X.Y/30

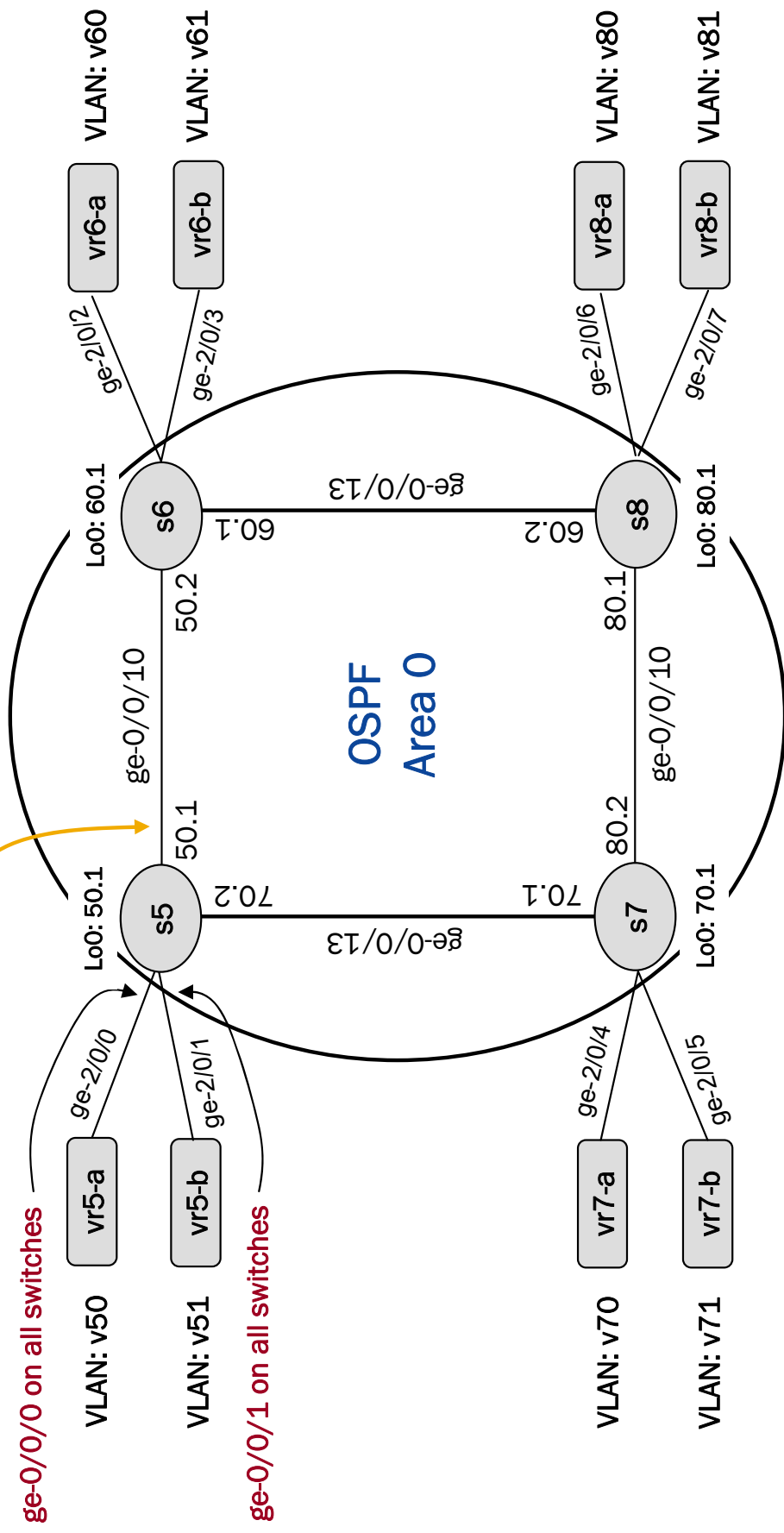


Lab 9, Part 4: Inter-VLAN Routing (Module B)

Virtual Router Addresses: 172.22.X.5/24 (X = VLAN-id value)

Loopback Address: 192.168.X.Y/32

Interface Addresses: 172.18.X.Y/30

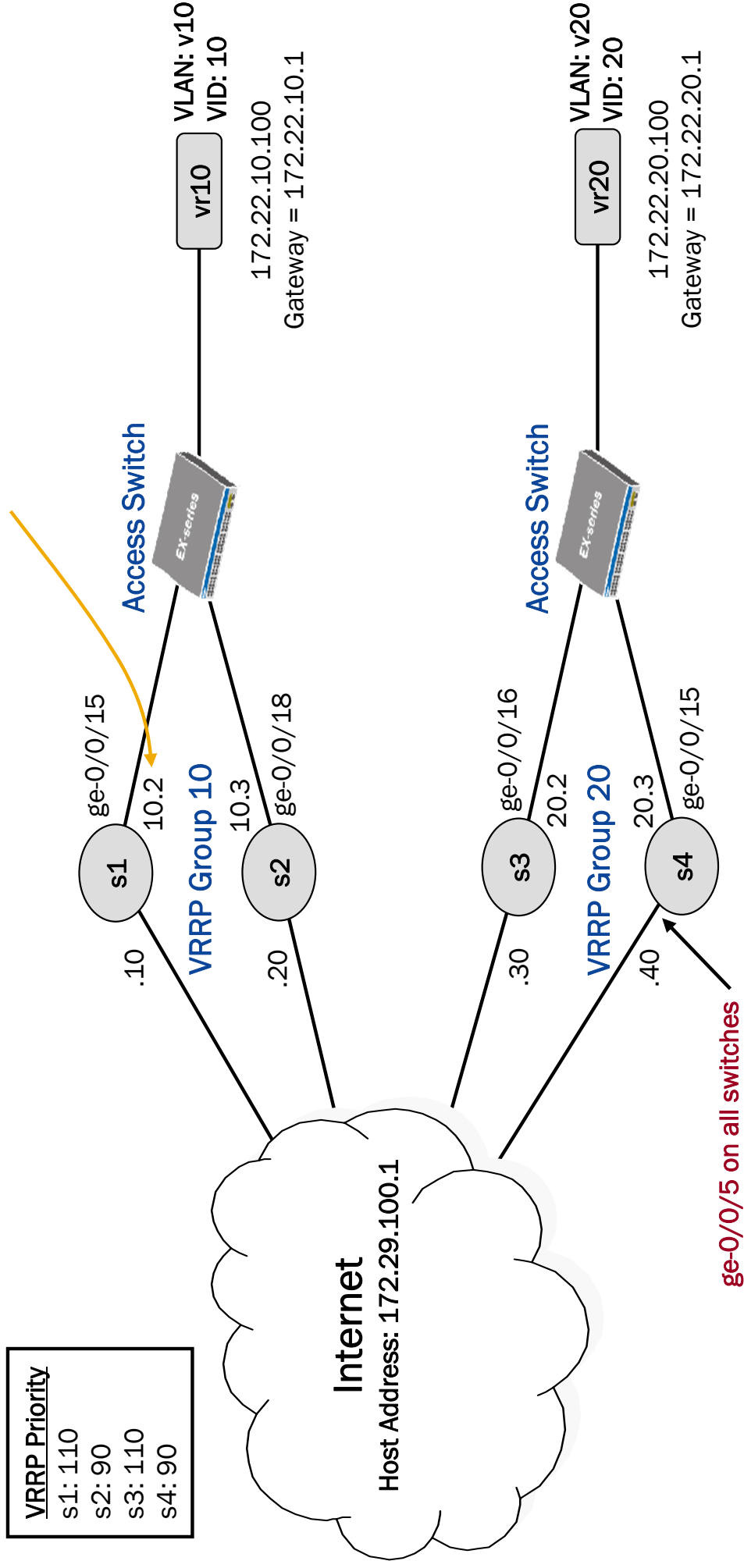


Lab 9, Part 5: Inter-VLAN Routing (Module A)

Virtual IP Address: 172.22.X.1/24 (X = VRRP group value)
 Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.X/24
 Internet Gateway: 172.30.0.1

VRRP Priority
s1: 110
s2: 90
s3: 110
s4: 90

Layer 3 VLAN interface address details

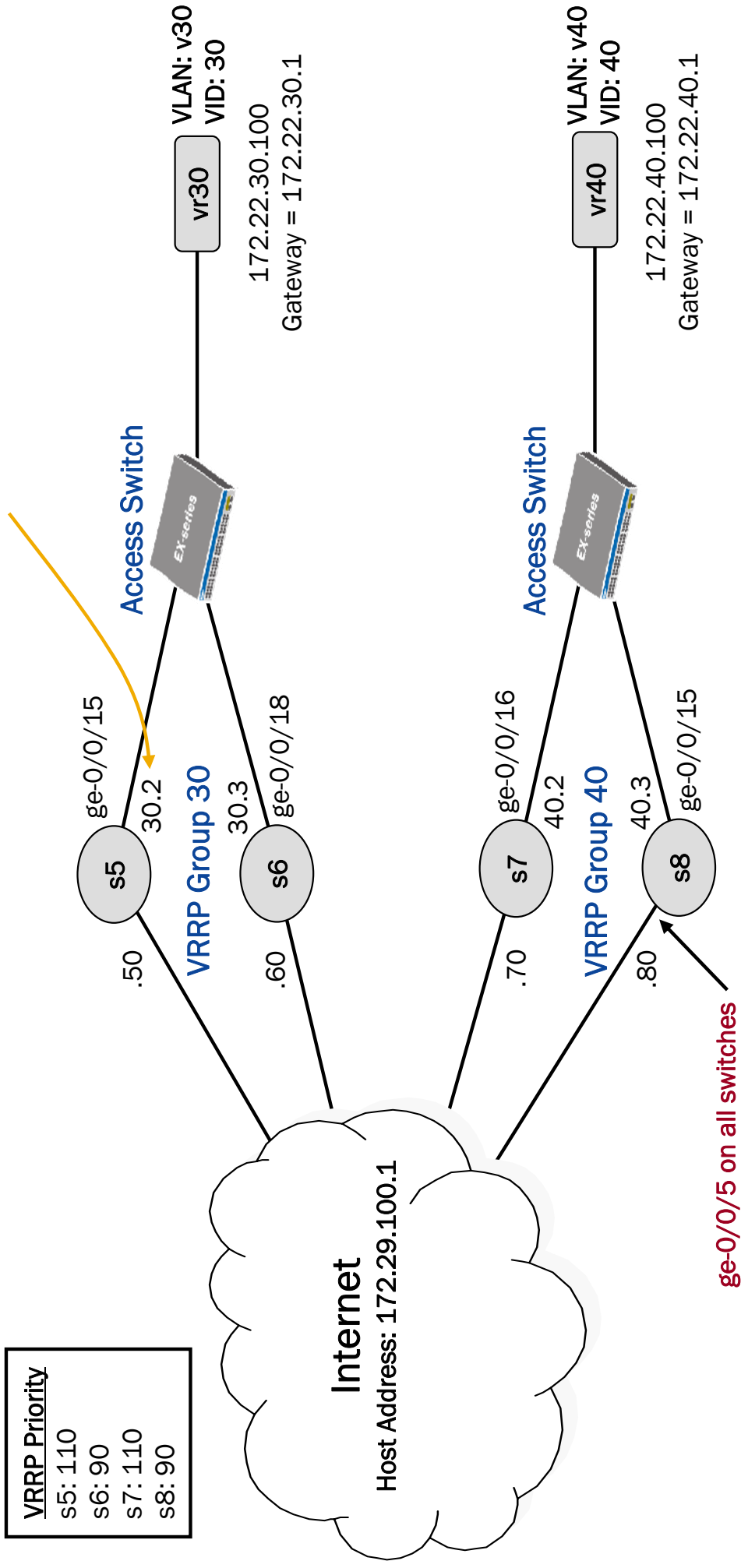


Lab 9, Part 5: Inter-VLAN Routing (Module B)

Virtual IP Address: 172.22.X.1/24 (X = VRRP group value)
 Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.X/24
 Internet Gateway: 172.30.0.1

VRRP Priority
s5: 110
s6: 90
s7: 110
s8: 90

Layer 3 VLAN interface address details



Lab 10: Routing Policy and Firewall Filters (Module A)

Loopback Address: 192.168.X.Y/32
 Interface Addresses: 172.18.X.Y/30

ge-0/0/0 on all switches

VLAN: v10

vr1-a

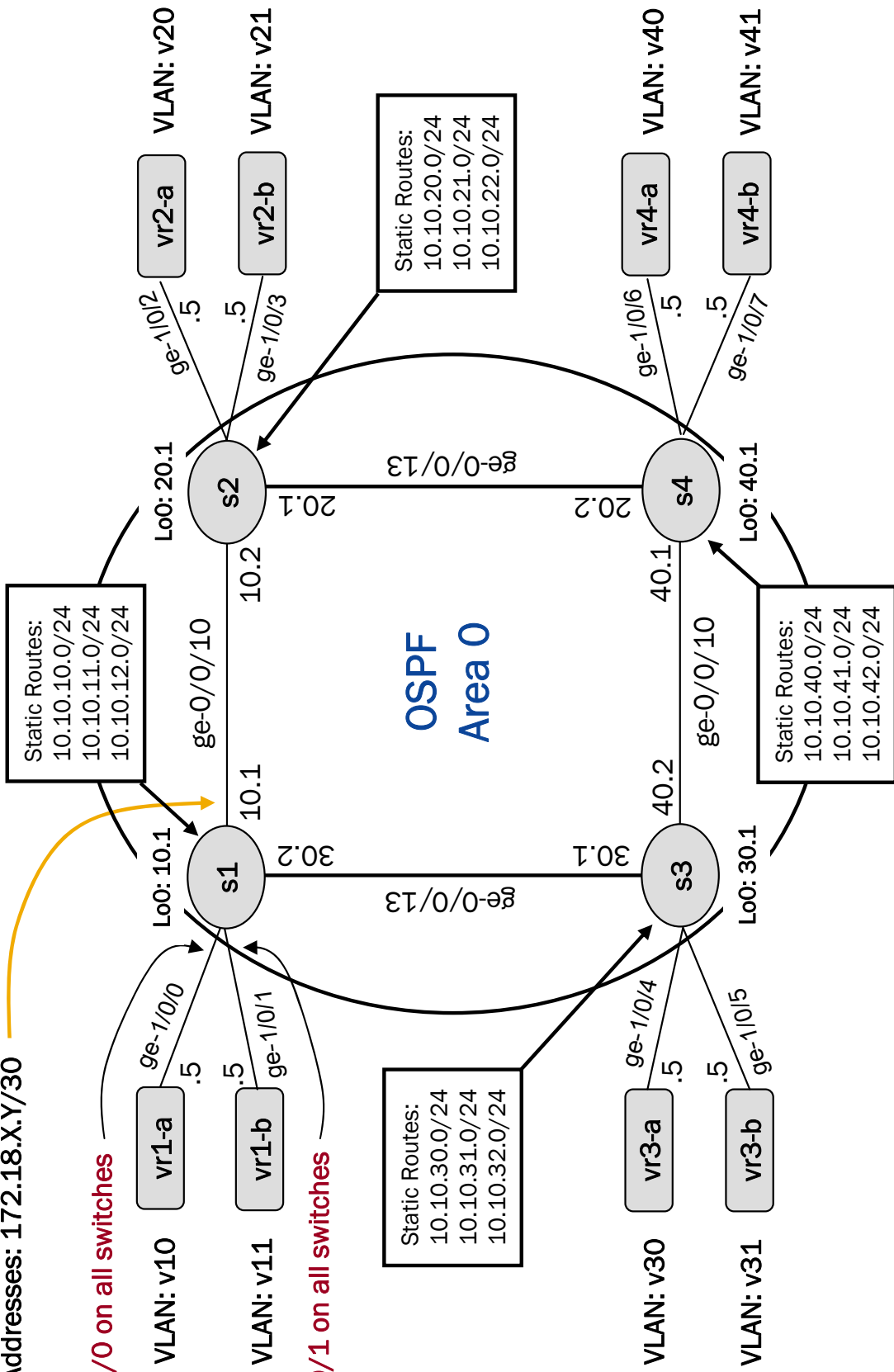
ge-1/0/0
.5

VLAN: v11

vr1-b

ge-1/0/1
.5

ge-0/0/1 on all switches



Lab 10: Routing Policy and Firewall Filters (Module B)

Loopback Address: 192.168.X.Y/32
 Interface Addresses: 172.18.X.Y/30

ge-0/0/0 on all switches

VLAN: v50

vr5-a

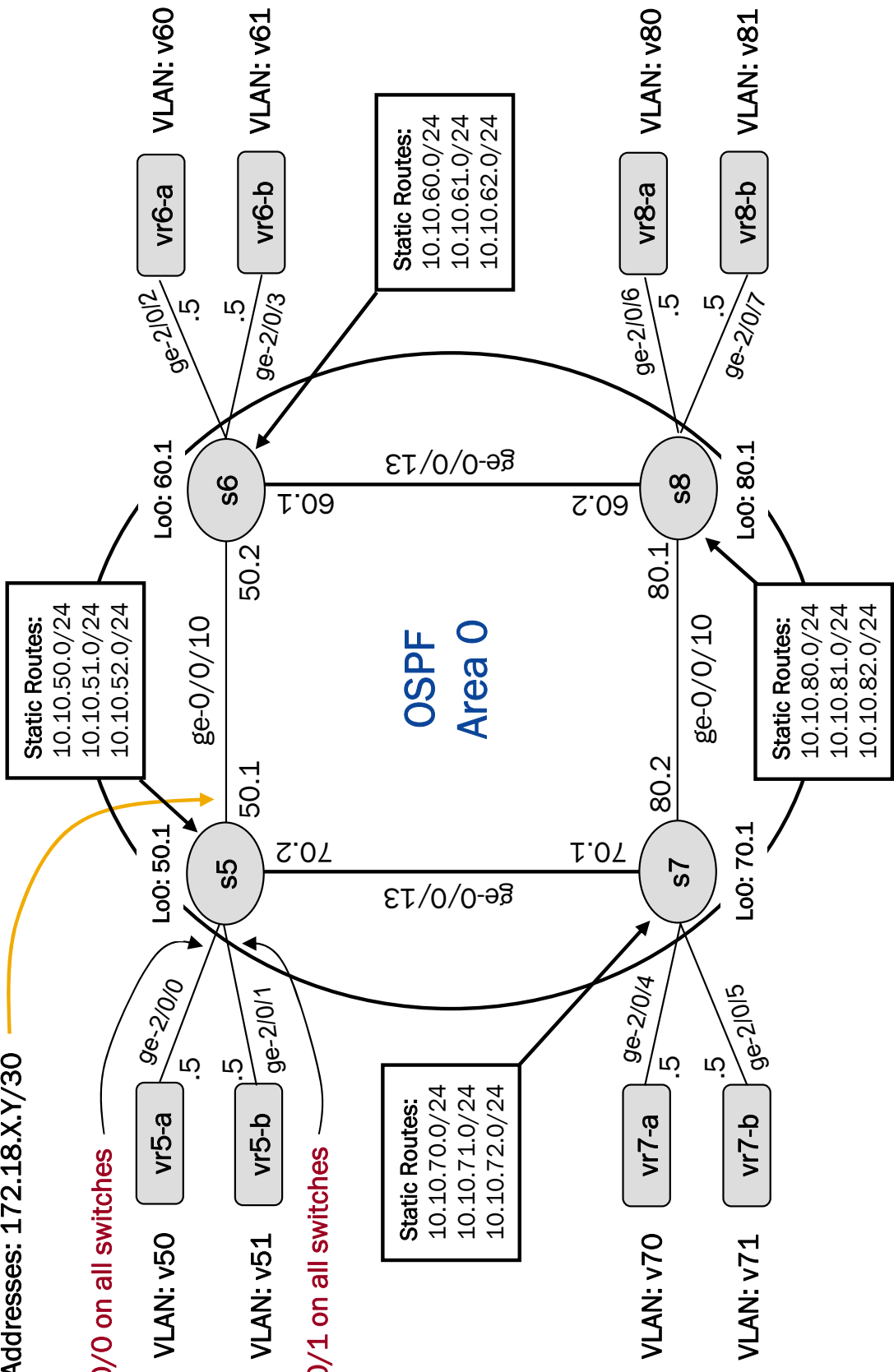
ge-2/0/0
.5

VLAN: v51

vr5-b

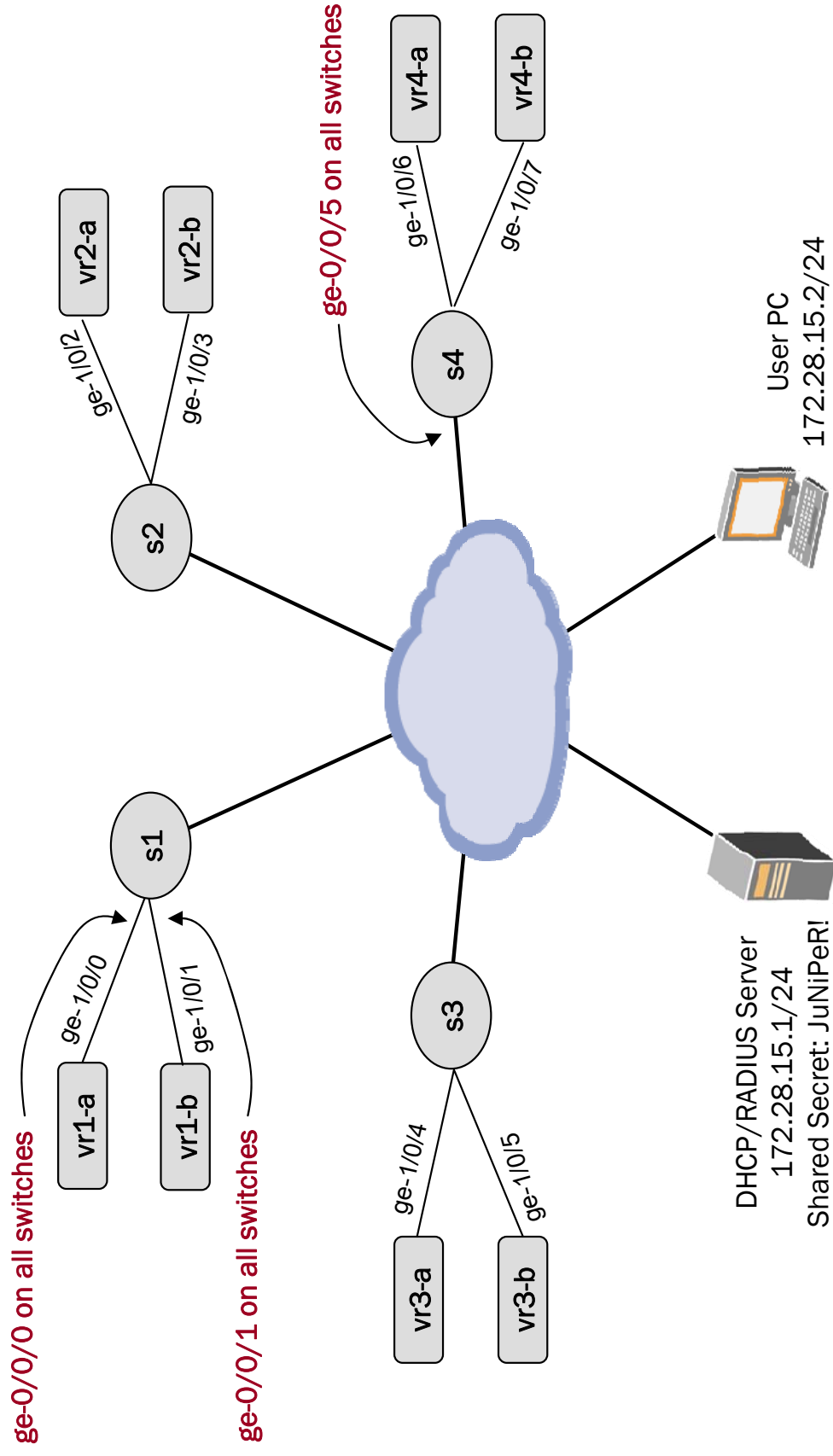
ge-2/0/1
.5

ge-0/0/1 on all switches



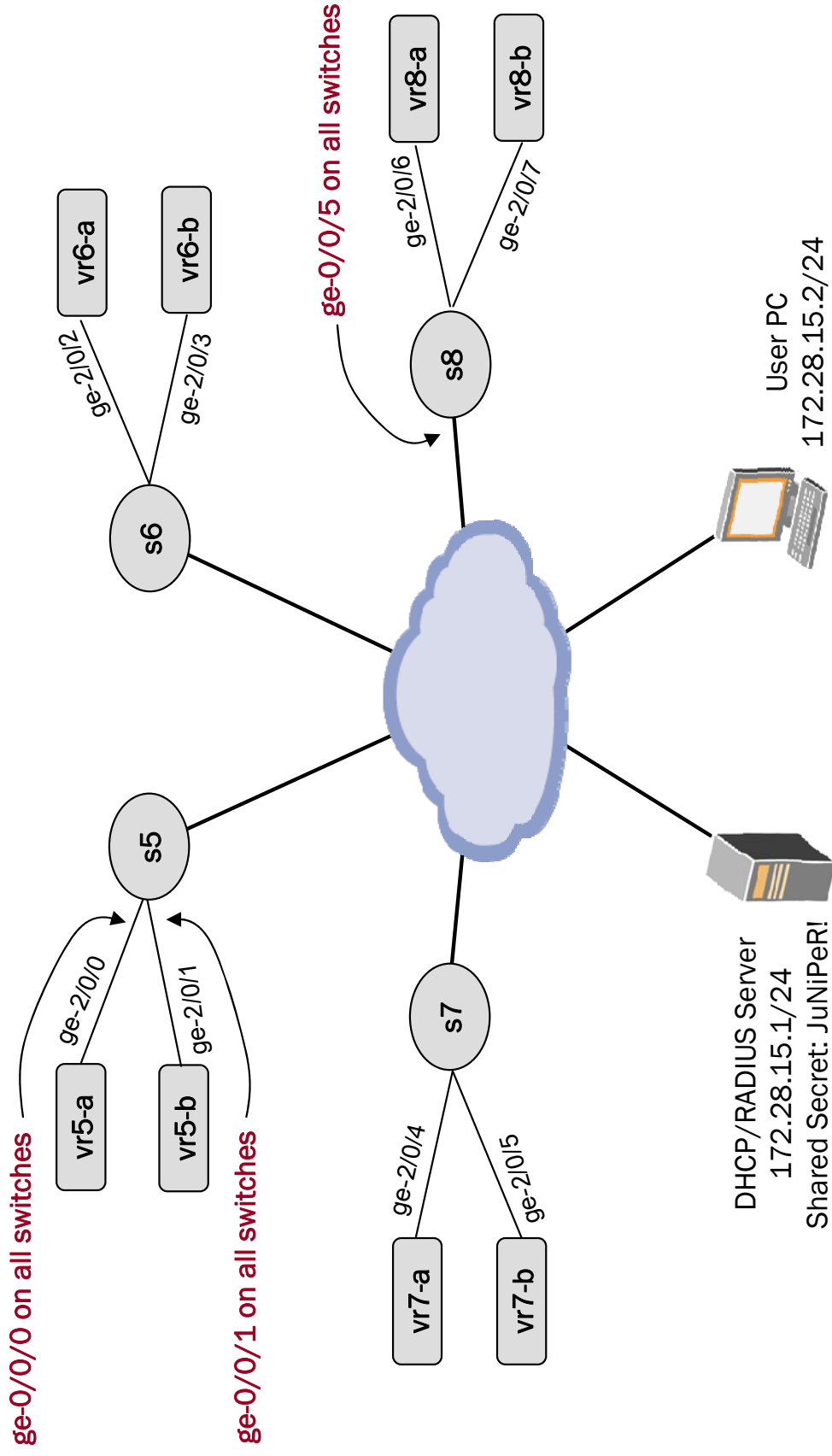
Lab 11: Switching Security (Module A)

NOTE: The ge-0/0/0, ge-0/0/1, and ge-0/0/5 interfaces should be configured as access ports and associated with VLAN v100 (VLAN-id 100)

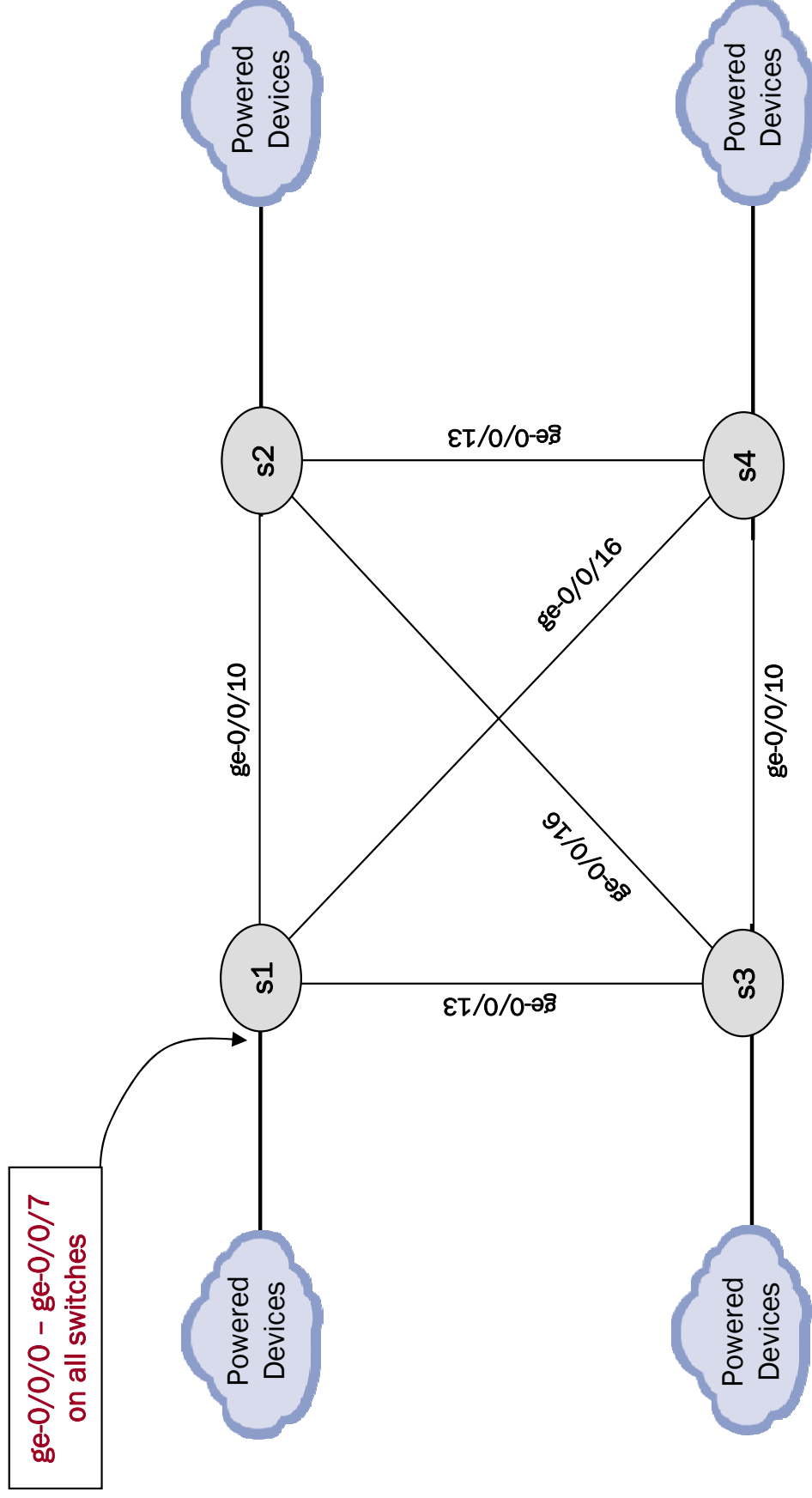


Lab 11: Switching Security (Module B)

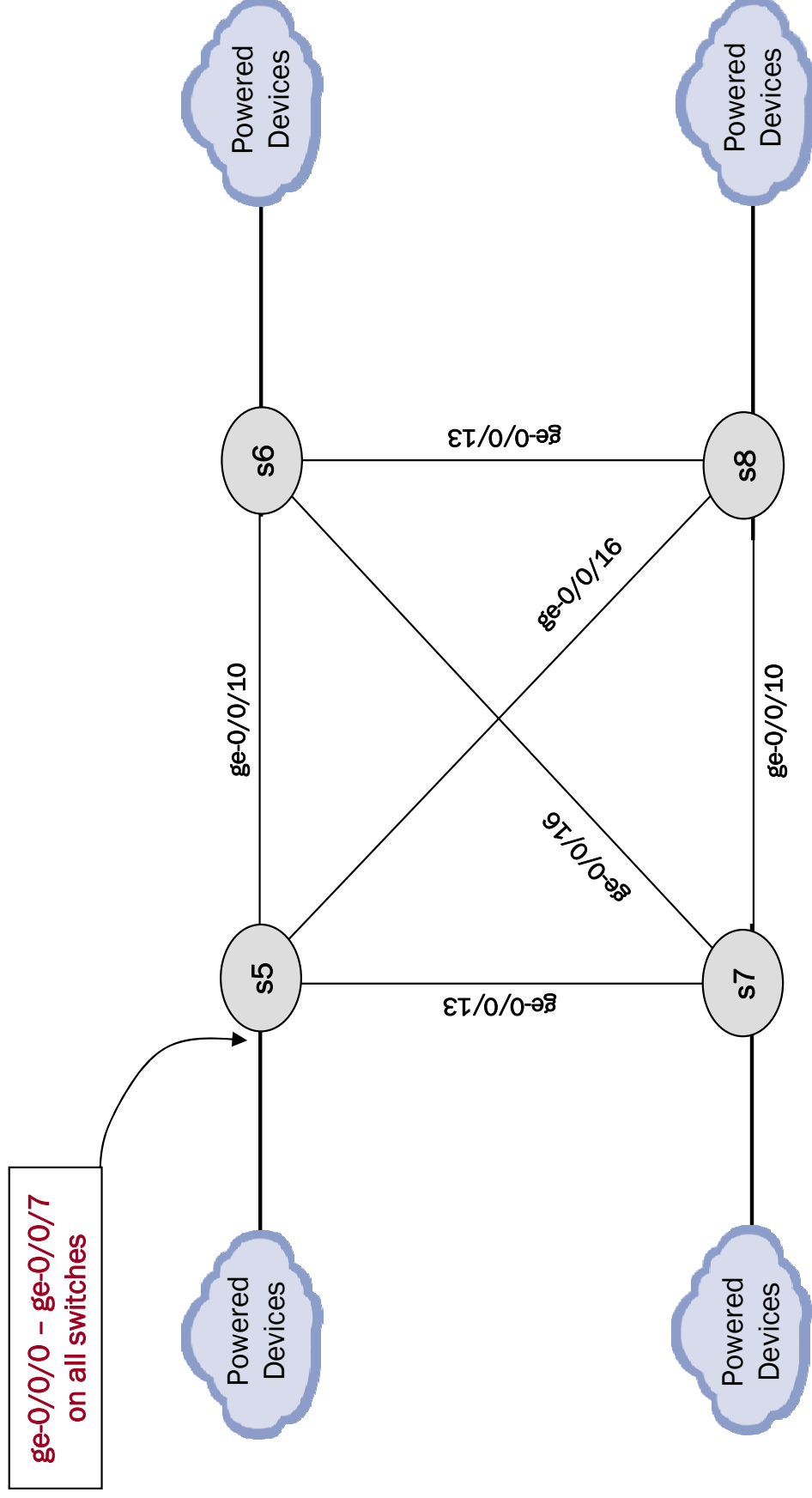
NOTE: The ge-0/0/0, ge-0/0/1, and ge-0/0/5 interfaces should be configured as access ports and associated with VLAN v100 (VLAN-id 100)



Lab 12: IP Telephony Services (Module A)

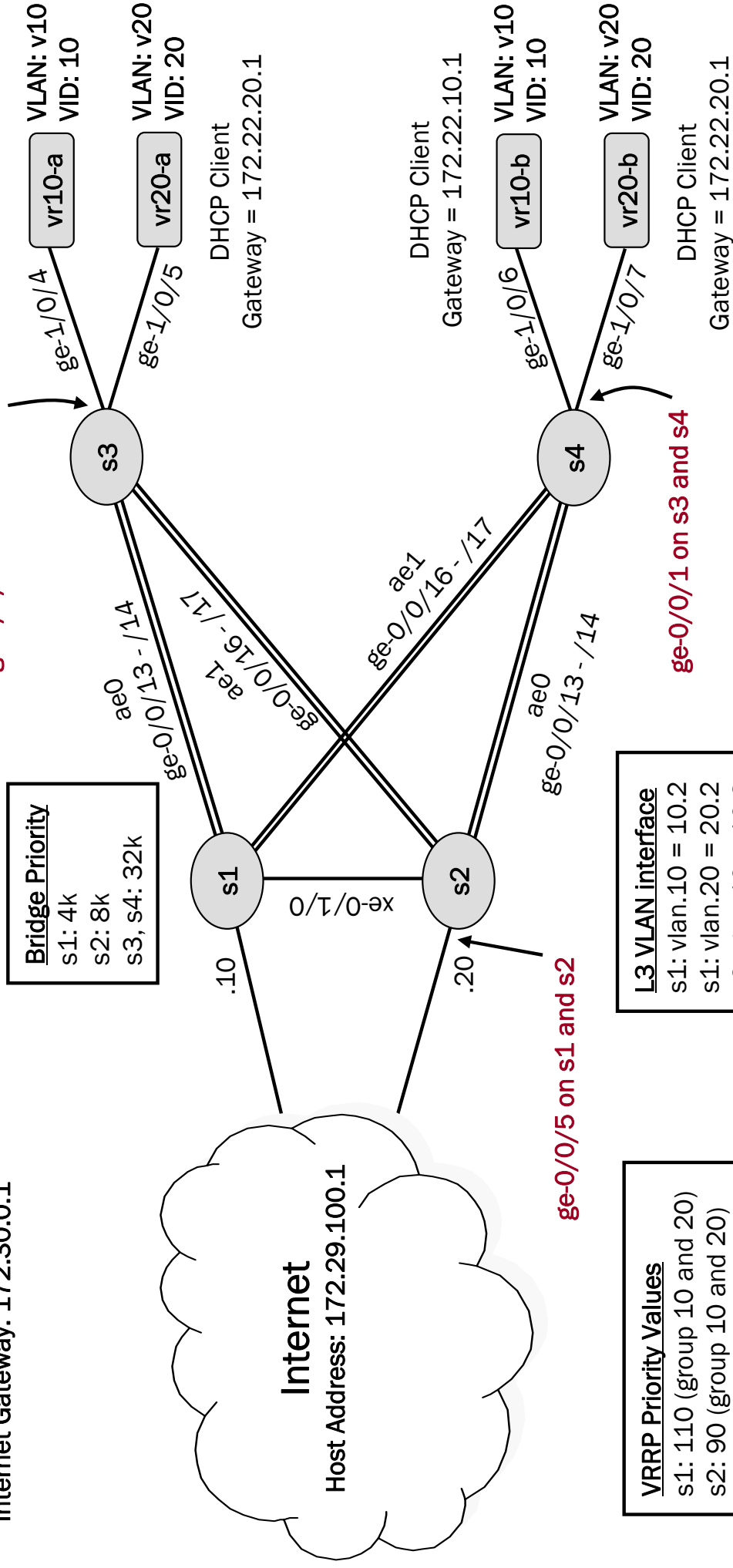


Lab 12: IP Telephony Services (Module B)



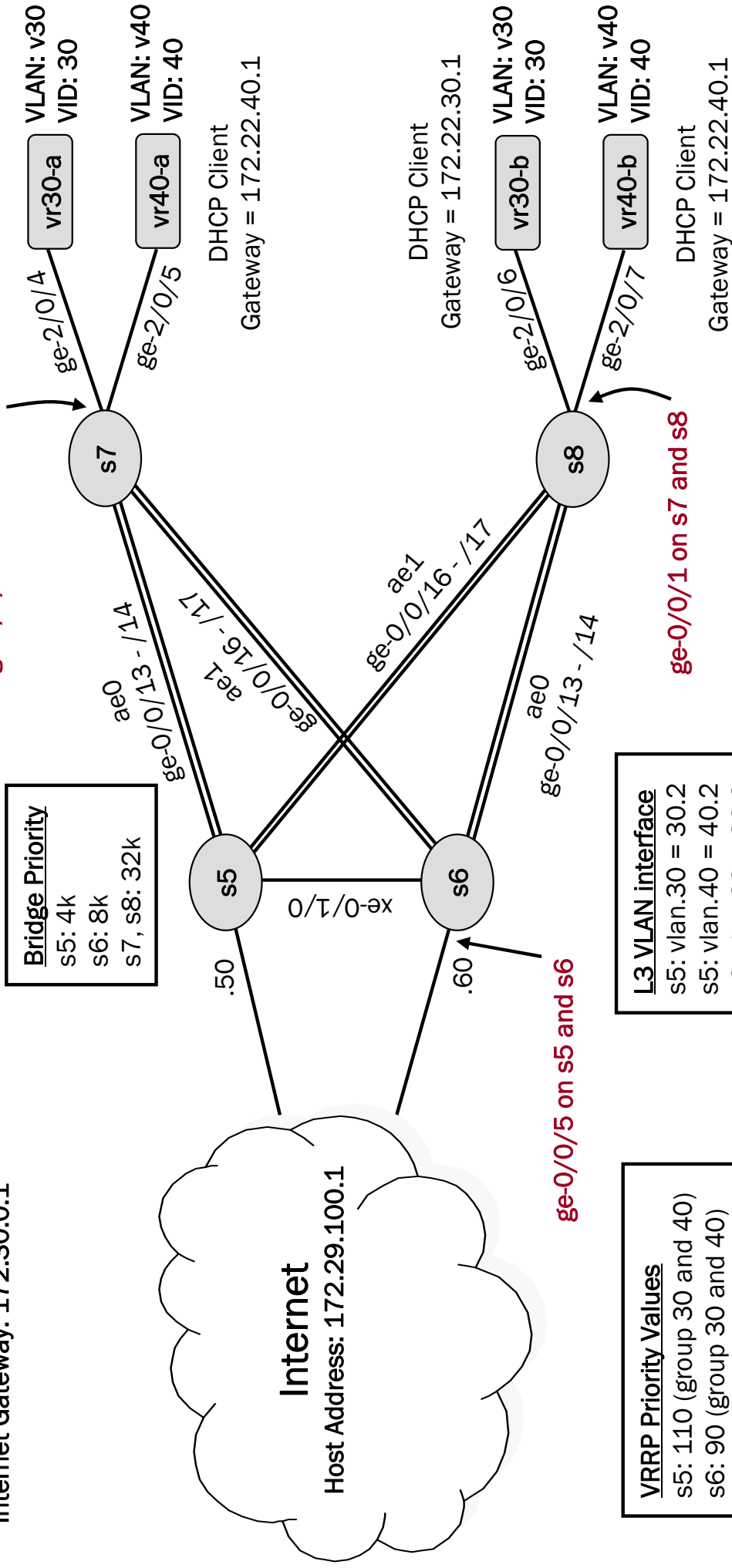
Lab 13: Design and Implementation (Module A)

Virtual IP Address: 172.22.X.1 (X = VRRP group value)
 Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.X/24
 Internet Gateway: 172.30.0.1



Lab 13: Design and Implementation (Module B)

Virtual IP Address: 172.22.X.1 (X = VRRP group value)
 Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.X/24
 Internet Gateway: 172.30.0.1



Bridge Priority
 s5: 4k
 s6: 8k
 s7, s8: 32k

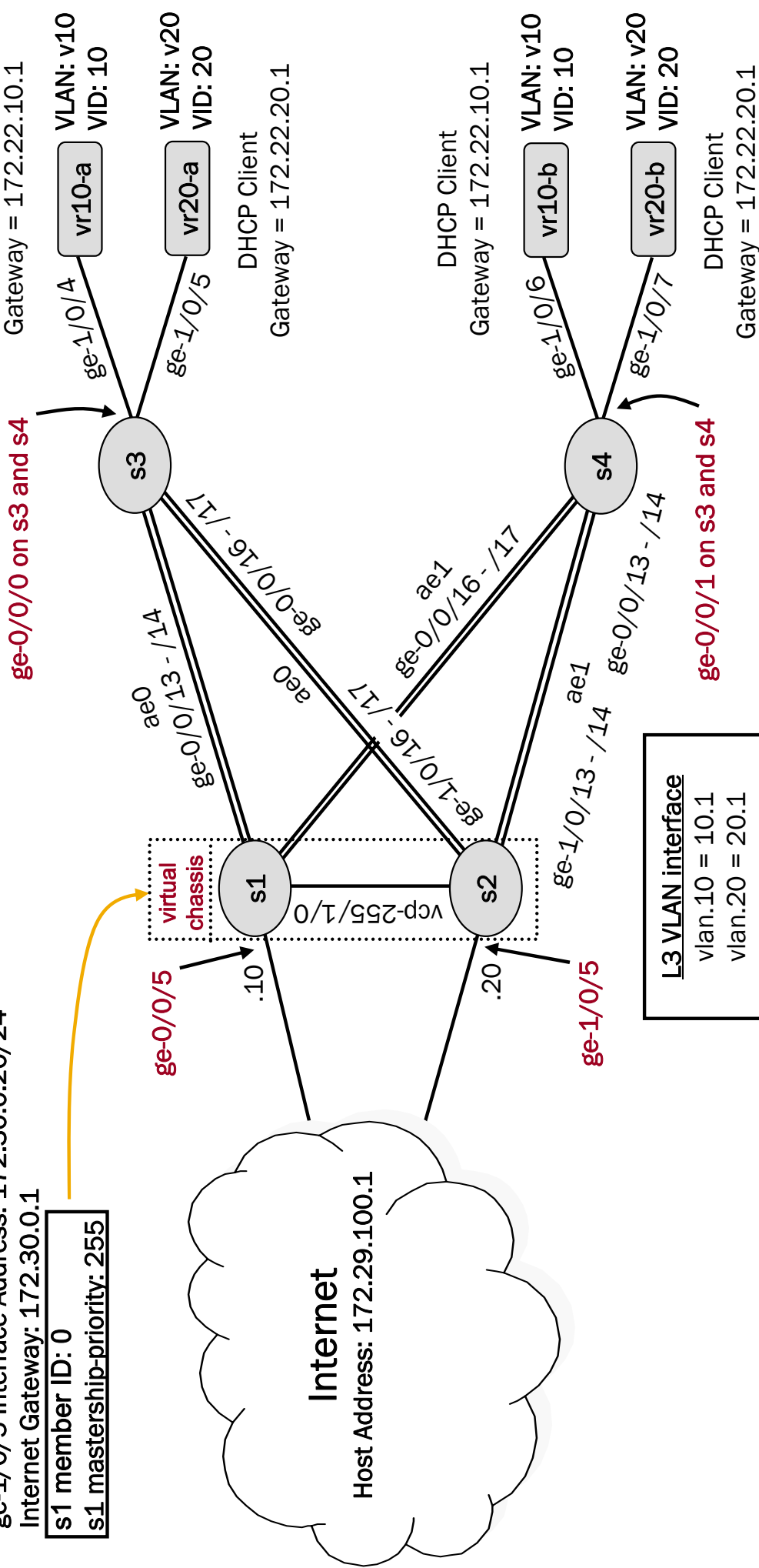
VRRP Priority Values
 s5: 110 (group 30 and 40)
 s6: 90 (group 30 and 40)

L3 VLAN interface
 s5: vlan.30 = 30.2
 s5: vlan.40 = 40.2
 s6: vlan.30 = 30.3
 s6: vlan.40 = 40.3

Lab 13: Virtual Chassis Implementation (Module A)

Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.10/24
 ge-1/0/5 Interface Address: 172.30.0.20/24
 Internet Gateway: 172.30.0.1

s1 member ID: 0
 s1 mastership-priority: 255



Lab 13: Virtual Chassis Implementation (Module B)

Layer 3 VLAN Interface Address: 172.22.X.Y/24
 ge-0/0/5 Interface Address: 172.30.0.50/24
 ge-1/0/5 Interface Address: 172.30.0.60/24
 Internet Gateway: 172.30.0.1

s5 member ID: 0
 s5 mastership-priority: 255

