OPS535 Virtual Lab

Routing Configuration
on
each Virtual LAN Segment (VLS)

by Raymond Chan
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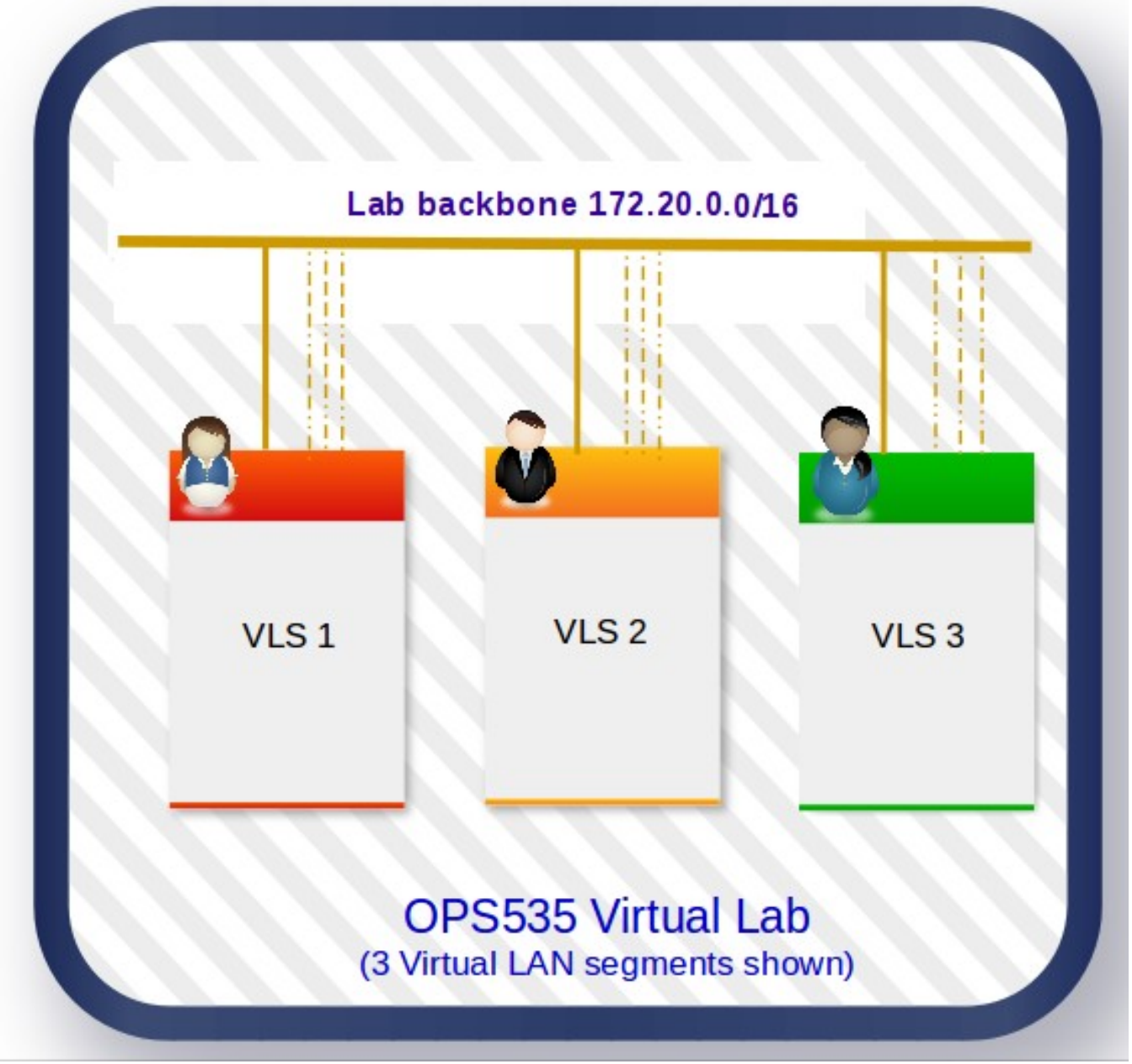
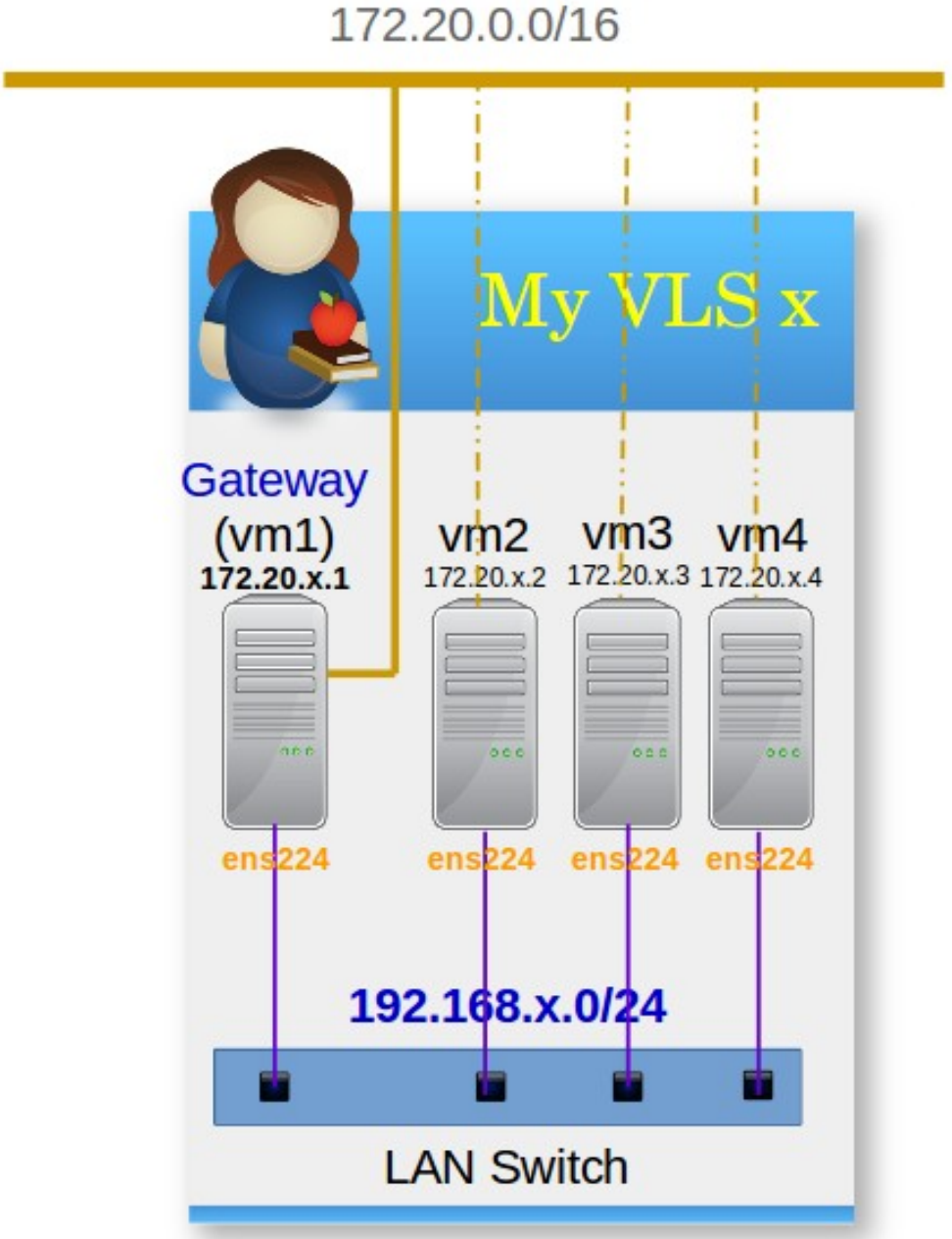
Network Diagram



SVL – Virutal LAN Segment



The network environment

- Treat the OPS535 Virtual Lab environment as the our INTERNET.
- The default gateway (172.20.255.1) for all the VM2 to VM4 in each VLS to the REAL Internet is temporary blocked (either by de-activate ens224 on VM2 to VM4, or block the out-going traffic by firewall)
- Configure routing on your four VMs so that all your VMs may communicate with all other Vms in the VL.
- No Network Address Translation on VM1, only pure routing.

routes on gateway

- Need one route per each VLS with network number y in SVL.
- On your gateway (VM1) 172.20.x.1, add route to 192.168.y.0/24 network using 172.20.y.1 as the gateway
- nmtui utility:
  - See the online demo.
- ip route command:
  - Ip route add 192.168.y.0/24 via 172.16.y.1 dev ens192

routes on each VM

- Need one route for each VLS with network number y (192.168.y.0/24) in SVL via your own gateway (172.20.x.1)
- On each of your vm 192.168.x.m, add route to 192.168.y.0/24 via your own gateway 192.168.x.1
- route command:
  - route add -net 192.168.y.0 netmask 255.255.255.0 gw **192.168.x.1**
- **nmtui utility**
  - **See online demo**

Testing

- Don’t forget to test the connectivities between your own VMs and at least one other student’s VMs. However, the more that better. If time permitted, test on ALL other students’ VMs.
- Capture evidence to proof that ALL your VMs can reach the network interface ens224 of all your classmate’s Vms.
- If you could not find another student to work with you, try testing the Vms with VLS number 2.
  - 192.168.2.1, 192.168.2.2, 192.168.2.3, 192.168.2.4
  - Gateway to 192.168.2.0/24 network: 172.20.2.1