

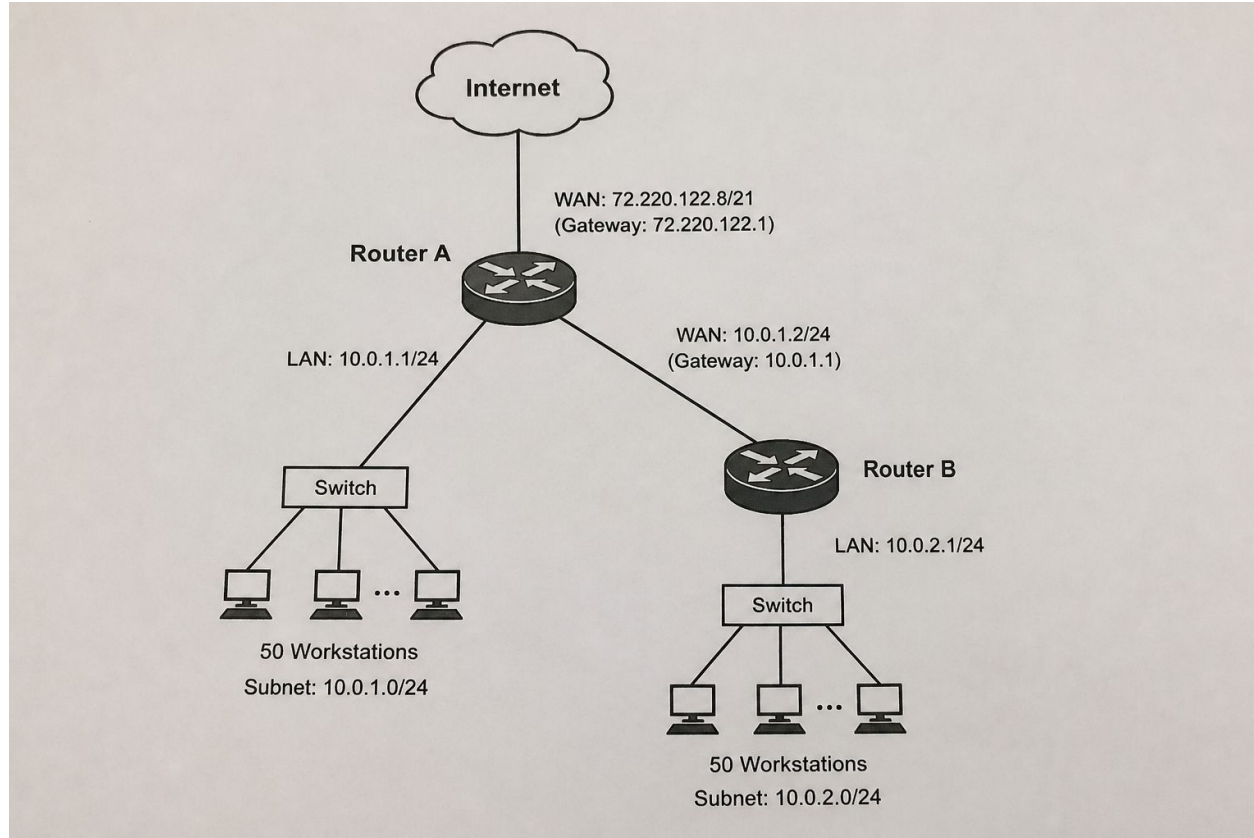
Hands on #7

Christopher Sicle

Overview

This network design successfully segments 100 workstations into two subnets (10.0.1.0 and 10.0.2.0) while maintaining full communication through static routing between Router A and Router B over a shared transit network. Router A handles external internet access and routes traffic to Router B, while Router B routes return traffic back through Router A, ensuring seamless communication between both internal networks and the internet.

Network Diagram



IP Address & Subnet Mask Configuration

- Router A

LAN Port (Internal Network – Subnet 10.0.1.0/24)

- IP Address: **10.0.1.1**
- Subnet Mask: **255.255.255.0**

WAN Port (Internet Connection)

- IP Address: **72.220.122.8**
- Subnet Mask: **255.255.248.0**
- Default Gateway: **72.220.122.1**

- Router B

WAN Port (Connected to Router A's LAN – Subnet 10.0.1.0/24)

- IP Address: **10.0.1.2**
- Subnet Mask: **255.255.255.0**
- Default Gateway: **10.0.1.1**

LAN Port (Internal Network – Subnet 10.0.2.0/24)

- IP Address: **10.0.2.1**
- Subnet Mask: **255.255.255.0**



Routing Tables

Router A

Destination	Mask	Next Hop	Interface
10.0.1.0	255.255.255.0	-	LAN
72.220.122.0	255.255.248.0	-	WAN
10.0.2.0	255.255.255.0	10.0.1.2	LAN
0.0.0.0	0.0.0.0	72.220.122.0	WAN

Routing Table B

Router B

Destination	Mask	Next Hop	Interface
10.0.2.0	255.255.255.0	-	LAN
10.0.1.0	255.255.255.0	-	WAN
0.0.0.0	0.0.0.0	10.0.1.1	WAN