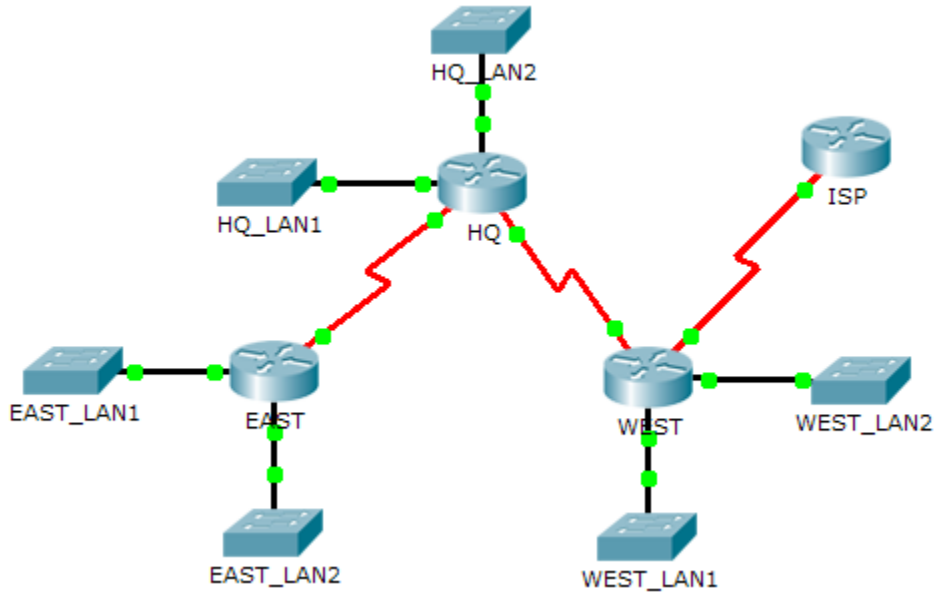


# Packet Tracer - Troubleshooting VLSM and Route Summarization

## Topology



## Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
HQ	G0/0			
	G0/1			
	S0/0/0			
	S0/0/1			
EAST	G0/0			
	G0/1			
	S0/0/0			
WEST	G0/0			
	G0/1			
	S0/0/0			
	S0/0/1			
HQ_LAN1	VLAN 1			
HQ_LAN2	VLAN 1			
EAST_LAN1	VLAN 1			
EAST_LAN2	VLAN 1			
WEST_LAN1	VLAN 1			
WEST_LAN2	VLAN 1			

## Objectives

**Part 1: Locate the Problem**

**Part 2: Determine the Solution**

**Part 3: Implement the Solution**

**Part 4: Verify That the Issues Are Resolved**

## Background / Scenario

In this activity, the network is already addressed using VLSM and configured with static routes but there is a problem. Locate the issues, determine the best solution, implement the solution, and verify the issues are resolved.

### Part 1: Locate the Problem

- Investigate the device and document the current addressing scheme in the Addressing Table.
- Using the Host Chart below, determine if the addressing on each LAN interface has the appropriate subnet mask based on the number of hosts required for that LAN.

## Host Chart

LAN	Interface	Number of Hosts
HQ LAN 1	G0/1	1500
HQ LAN 2	G0/0	1000
EAST LAN 1	G0/1	900
EAST LAN 2	G0/0	900
WEST LAN 1	G0/0	250
WEST LAN 2	G0/1	500

## Part 2: Determine the Solution

- Determine the solution to the addressing errors and correct the documentation in the Addressing Table.
- After the addressing scheme is corrected, analyze the summary routes to see if any errors exist. There should be one summary route for both LANs of each router.
- Document the errors and the solution to each problem found in the Troubleshooting Documentation table below.

## Troubleshooting Documentation

Problem	Solution

## Part 3: Implement the Solution

- Correct addressing errors.
- Correct summary route errors.

## Part 4: Verify That the Issues Are Resolved

Ping each switch from EAST\_LAN1. If you are unsuccessful, recheck your addressing scheme and summary route configurations.

### Suggested Scoring Rubric

Activity Section	Possible Points	Earned Points
Addressing Table	25	
Troubleshooting Documentation	25	
<b>Packet Tracer Score</b>	<b>50</b>	
<b>Total Score</b>	<b>100</b>	