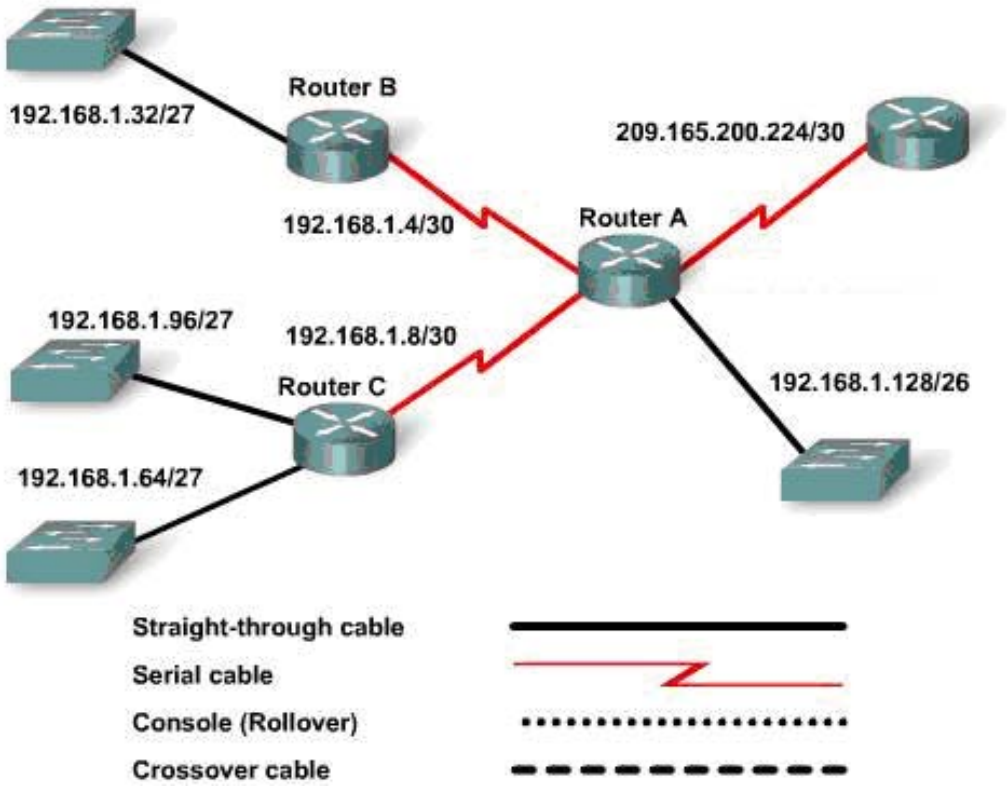
Lab 4.3.3 Calculating Route Summarization



Device	Fa0/0 Network and Subnet Mask	Fa0/1 Network and Subnet Mask	Serial 0/0/0 Network and Subnet Mask	Serial 0/0/1 Network and Subnet Mask	Serial 0/1/0 Network and Subnet Mask
RouterA	192.168.1.128/26	N/A	192.168.1.4/30	192.168.1.8/30	209.165.200.224/30
RouterB	192.168.1.32/27	N/A	192.168.1.4/30	N/A	N/A
RouterC	192.168.1.64/27	192.168.1.96/27	192.168.1.8/30	N/A	N/A

Objectives

- Calculate route summarization for each router.
- Calculate the total summarization so that RouterA can pass a smaller routing table to the ISP.

Background / Preparation

Use the information in the topology to calculate the route summarization for each router. Begin with RouterC, because it has two FastEthernet networks and RouterB has only one.

After completing the table for RouterC, calculate the summarization for RouterB (it only advertises one route).

Next, calculate the summarization for RouterA. It will summarize its own network on FastEthernet 0/0, the Serial networks, and the summary routes from RouterB and RouterC.

Step 1: Complete this summarization table for RouterC

RouterC	Network Number in Binary	Network Number in Decimal
Fa0/0		
Fa0/1		
Summary Route		

Step 2: Complete this summarization table for RouterB

RouterB	Network Number in Binary	Network Number in Decimal
Fa0/0		
Fa0/1	NA	NA
Summary Route		

Step 3: Complete this summarization table for RouterA

RouterA	Network Number in Binary	Network Number in Decimal
Fa0/0		
Fa0/1	NA	NA
Serial 0/0/0		
Serial 0/0/1		
Summary Route from RouterC		
Summary Route from RouterB		
Summary Route		