WHY THIS IS YOUR PROBLEM

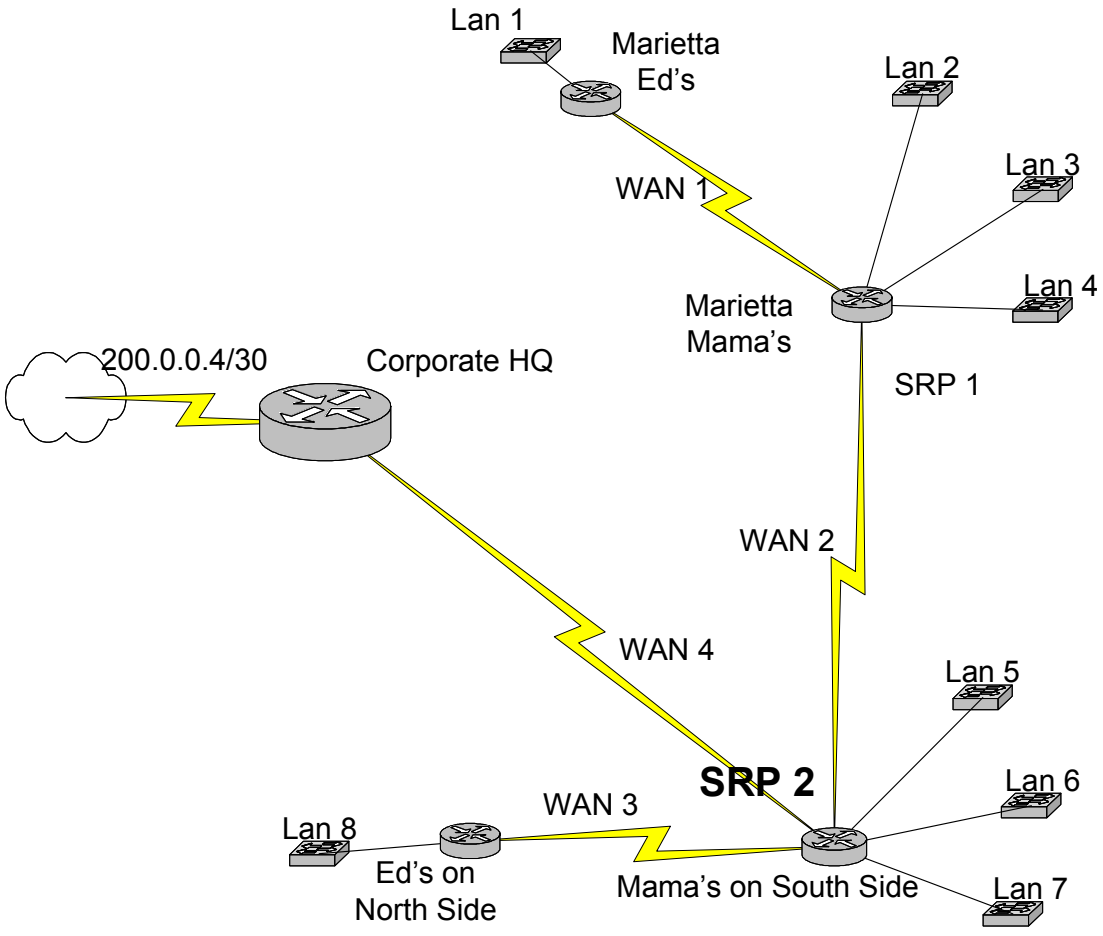
"Mama Salmonella's Kickin Chickin" is a national chain of stores that offers a variety of products including groceries, sporting goods, bait, and 31 flavors of fried chicken. They have two stores in this area, on South Side Parkersburg and the other in Marietta, OH. Recently, Mama's has bought out another national chain, a hamburger franchise fondly known as Ed Coli's Scarf'n'Barf. Ed's also had two stores in the Parkersburg area, and they are being added to Mama's network. You were the regional network admin for Ed's and expected to be fired when the chain was bought out, but when the people at Mama's found out you had actually seen the Bitman and were an original student of Papa Tom, they kept you and fired their guy. Life is good, eh?

WHAT YOU HAVE TO DO

Right now, both of Ed's old stores have subnets from a public class C network and Mama's stores are using subnets from a public class B network. The eggheads at Corporate Headquarters have decided to take this time to push down a system-wide overhaul of IP addressing using private addressing space. You have to take the block of addresses they give you and plan for your region. Assign the addresses as efficiently as possible and keep in mind that all of your routes are going to a corporate router that is running Network Address Translation for the entire company, so plan to allow summarization where you can to ease the load on the NAT router's routing tables.

DETAILS

The following chart and diagram displays the topology and numbers given to you by Corporate HQ that specify the current need for IP addresses and the projected need over the next seven years. Space has been provided for you to document the network IDs and subnet masks (abbreviated "SNM".) There are also entries for you to list summarized routes at two key locations in the network. These are labeled as SRPs (Summarization Reference Points.) **You have been assigned 172.20.68.0/23.**



Network	Current Addresses	Projected Growth	Total Addresses	Network ID	SNM (Slash Notation)
Lan 1	6	+0%	6	172.20.68.112	/29
Lan 2	48	+25%	60	172.20.68.0	/26
Lan 3	14	+0%	14	172.20.68.96	/28
Lan 4	23	+30%	30	172.20.68.64	/27
Lan 5	40	+25%	50	172.20.69.0	/26
Lan 6	20	+40%	28	172.20.69.128	/27
Lan 7	37	+30%	48	172.20.69.64	/26
Lan 8	10	+40%	14	172.20.69.160	/28
Wan 1	2	--	2	172.20.68.120	/30
Wan 2	2	--	2	172.20.68.124	/30
Wan 3	2	--	2	172.20.69.176	/30
Wan 4	2	--	2	172.20.69.180	/30
SRP 1				172.20.68.0	/25
SRP 2				172.20.68.0	/23