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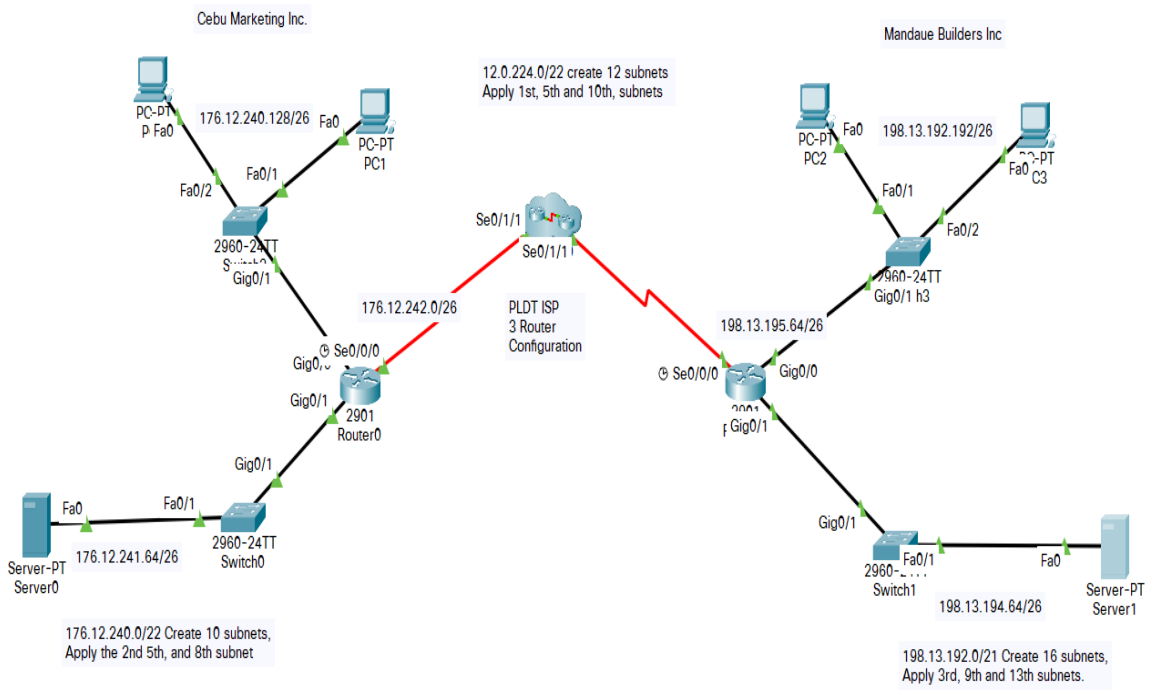
Lab Activity 5.0.0.1: Implementing CIDR using RIPv2 Protocol

1. Develop the topology



2. **Compute for the addresses of the given networks using CIDR.**

12.0.224.0/22- create 12 subnets

Apply 1st, 5th, 10th Subnet.

Step1: Identify the class = **12.0.111000 00.00**000000
Step2: Requirement = 12 subnets

Step3: Borrowed bits = 4 bits
2^4=> 12= 16-2= 14 true

Step4: New Subnet Mask = /26--- 255.255.255.192

Step5: Range= 256-192= 64
2^remaining bits--- 2^6= 64

Step 6: Plot on the table

176.12.240.0/22- create 10 subnets

Apply 2nd, 5th, 8th Subnet.

Step1: Identify the class = **176.12.111100 00.00**000000
Step2: Requirement = 10 subnets

Step3: Borrowed bits = 4 bits
2^4=> 10= 16-2= 14 true

Step4: New Subnet Mask = /26--- 255.255.255.192

Step5: Range= 256-192= 64
2^remaining bits--- 2^6= 64

Step 6: Plot the table

198.13.192.0/21- create 16 subnets

Apply 3rd, -9th, 13th Subnet.

Step1: Identify the class = **198.13.11110000.00**000000
Step2: Requirement = 16 subnets

Step3: Borrowed bits = 5 bits
2^5=> 16= 32-2 = 30 true

Step4: New Subnet Mask = /26--- **255.255.255.192**

Step5: Range= 256-192= 64
2^remaining bits--- 2^6= 64

Step 6: Plot on the table

3. Configure HTTP for each company where all computers can access the website.

4. Configure RIPv2 to all Routers.

5. Verify connection by accessing each website from one end to another.