

Department of Information Engineering (DEI)
Master degree on ICT for Internet and Multimedia Engineering (MIME)
INTERNET – LAB Experience 3: Review on Routing

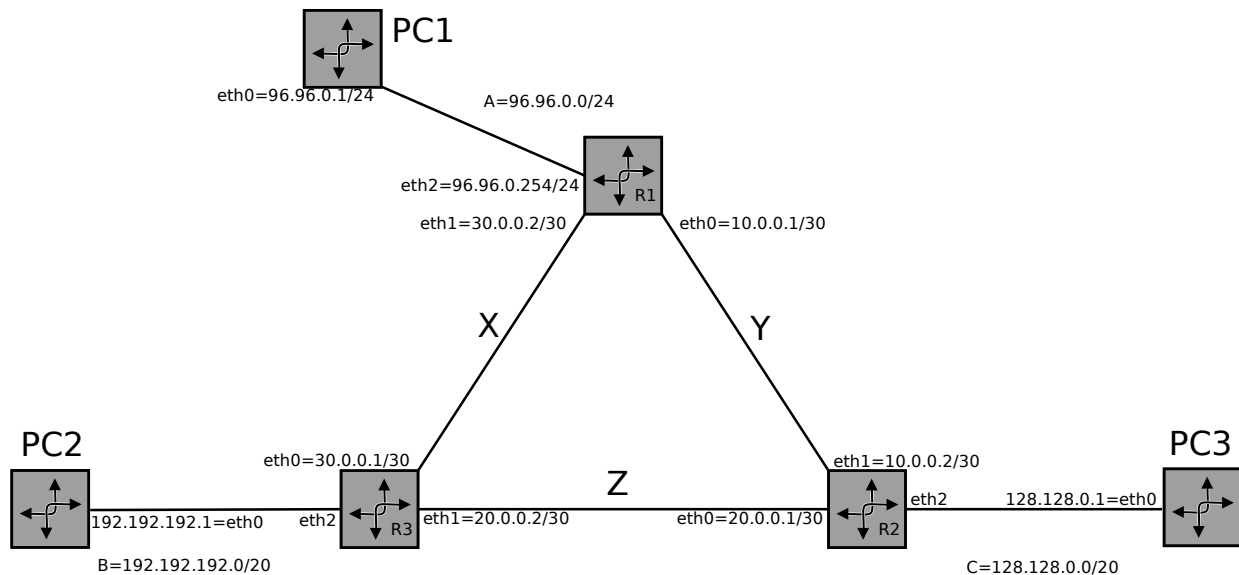


Figure 1: Network topology and relative configuration details.

Exercise 1: Consider the network topology illustrated in Figure 1. Configure the IP address of each PC (PC1, PC2, PC3) and router (R1, R2, R3) as shown in Figure 1.

Warning: Different networks are associated with different netmasks.

Exercise 2: In order to enable full connectivity, add the appropriate routing entries to PCs' and routers' routing tables. Each PC should be able to reach all other PCs in the network (each PC must be able to ping all interfaces, i.e., all IP addresses, of any other PC).

Warning: It is NOT allowed to add **DEFAULT GATEWAY ROUTES**, i.e., only static routes should be configured.

Exercise 3: How would the routing tables of the intermediate routers change if default gateways could be used? Would it be more efficient?

Exercise 4: When all networks are connected, perform a **tracert** command from one end of the topology to the other. Check with WireShark the header fields of the IP packets that are exchanged during the traceroute and describe how packets find intermediate connections.