SYCS CN

PRACTICAL 2

AIM :

Using Packet Tracer, create a basic network of two computers using appropriate network wire. Use Static IP address allocation and show connectivity.

1. Static routing method is most trusted by a router.
2. Static routing is not really a routing protocol.
3. Static routes do not dynamically adapt to network changes, are not particularly scalable, and require manual updating to reflect changes.

Static routing has the following advantages

1. There is no bandwidth usage between routers, which means you could possibly save money on WAN links.
2. There is no overhead on the router CPU, which means you could possibly buy a cheaper route than you would use if you were using dynamic routing.
3. It adds security because the administrator can choose to allow routing access to certain networks only.

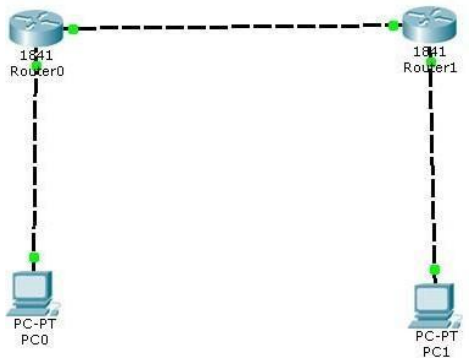
Static routing has the following disadvantages

1. Static routes don't dynamically adapt to network change.
2. If a network is added to the internetwork, the administrator has to add a route to it on all routers—by hand.
3. It's not feasible in large networks because maintaining it would be a full time job in itself.
4. With static routing, as your network grows, it can be difficult just to keep adding static routes to make sure everybody can still get everything.
5. The administrator must really understand the internetwork and how each router is connected in order to configure routes correctly.

There are two different styles to configure an “ip route” command:

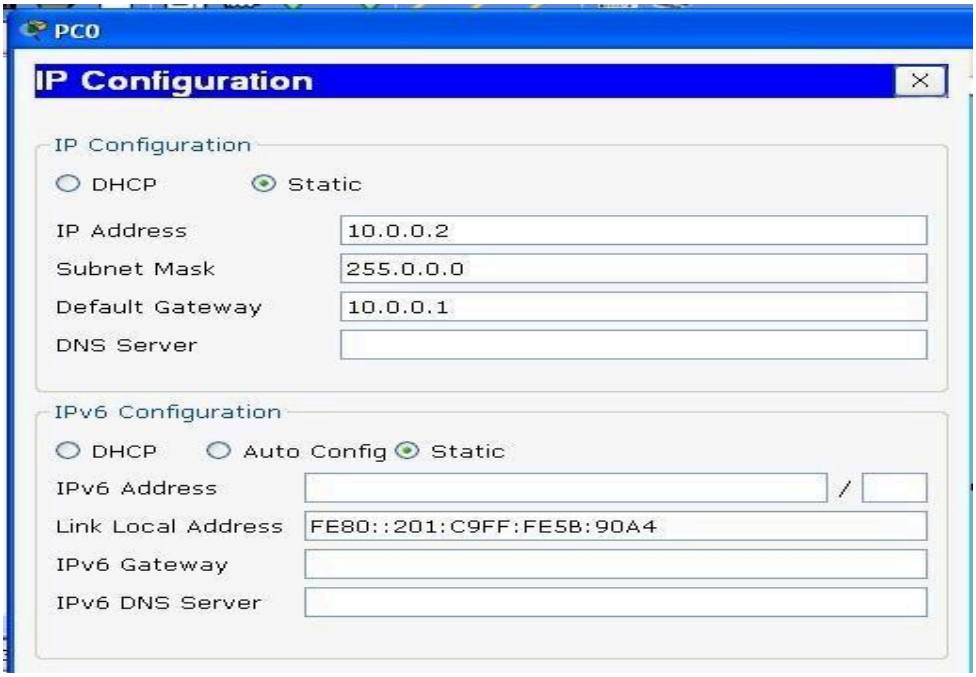
1. Using a next hop IP address
2. Using an outgoing interface

Consider the following network

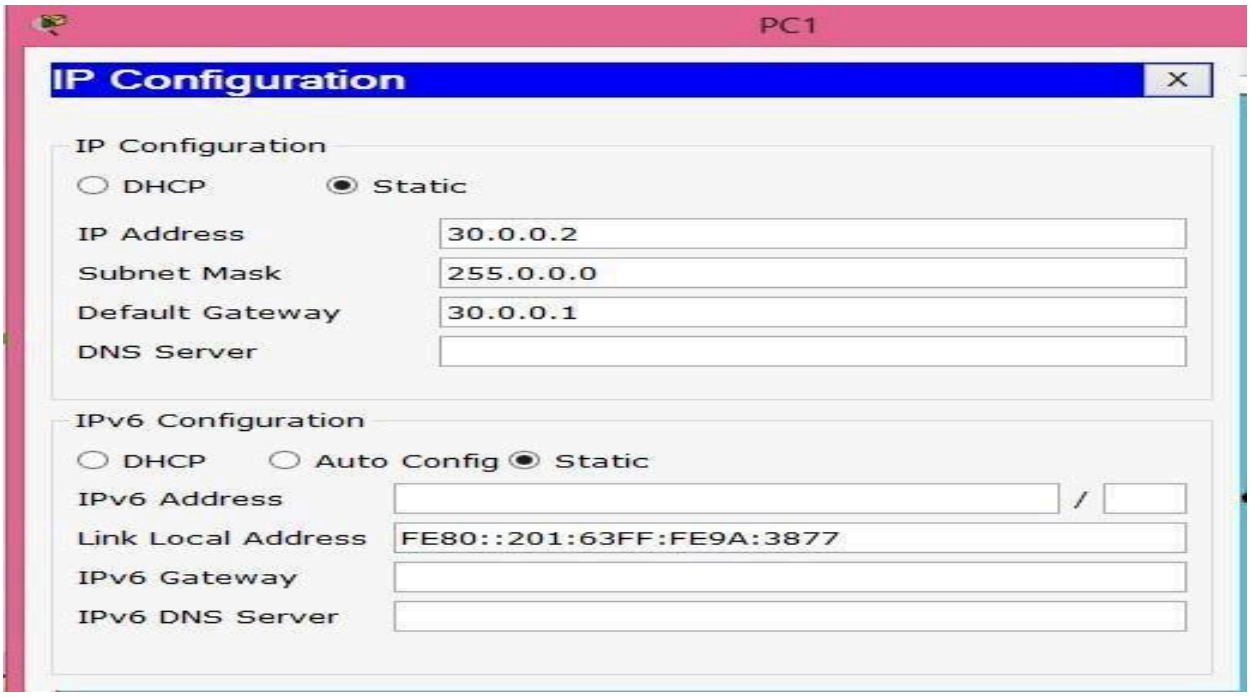


We configure it as follows

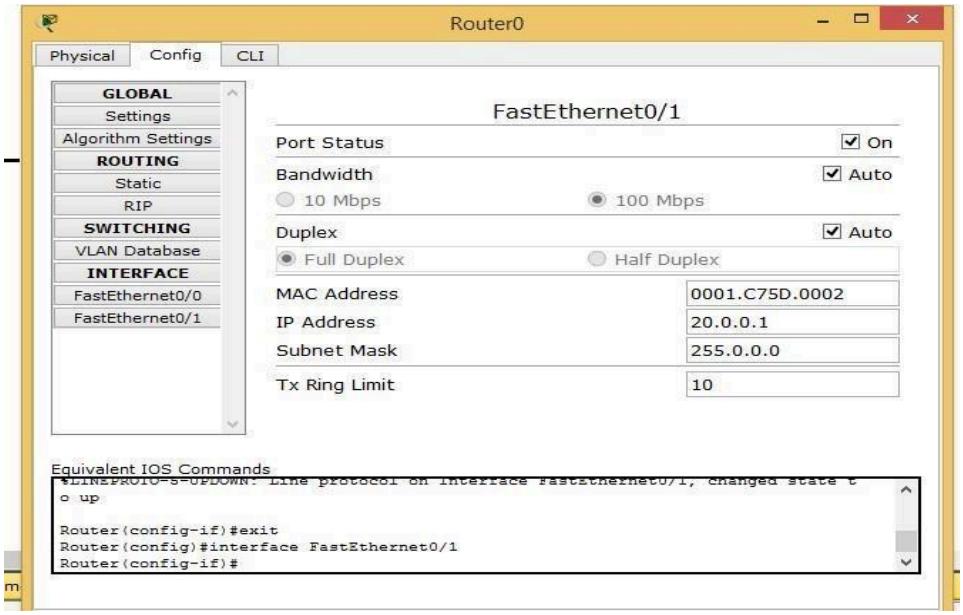
Step 1: (configure PC 0)

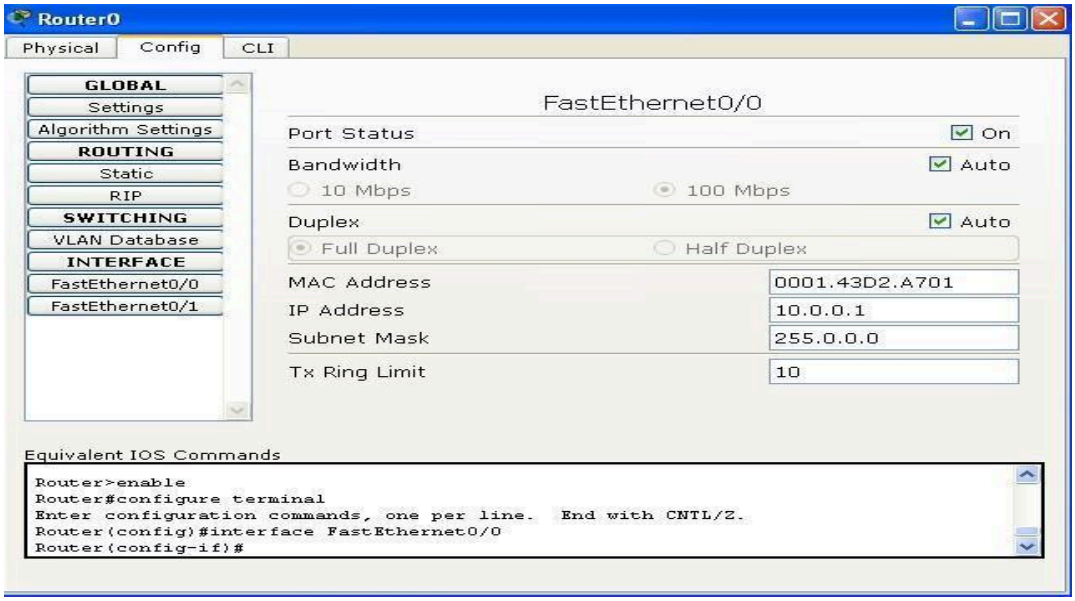


Step 2: (configure PC 1)

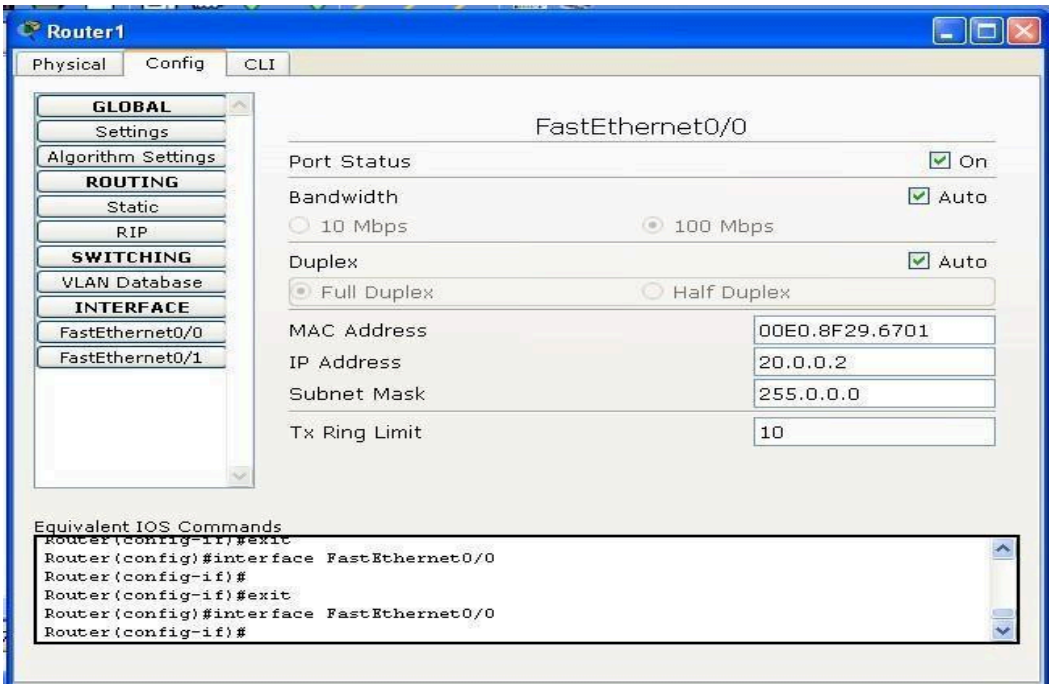


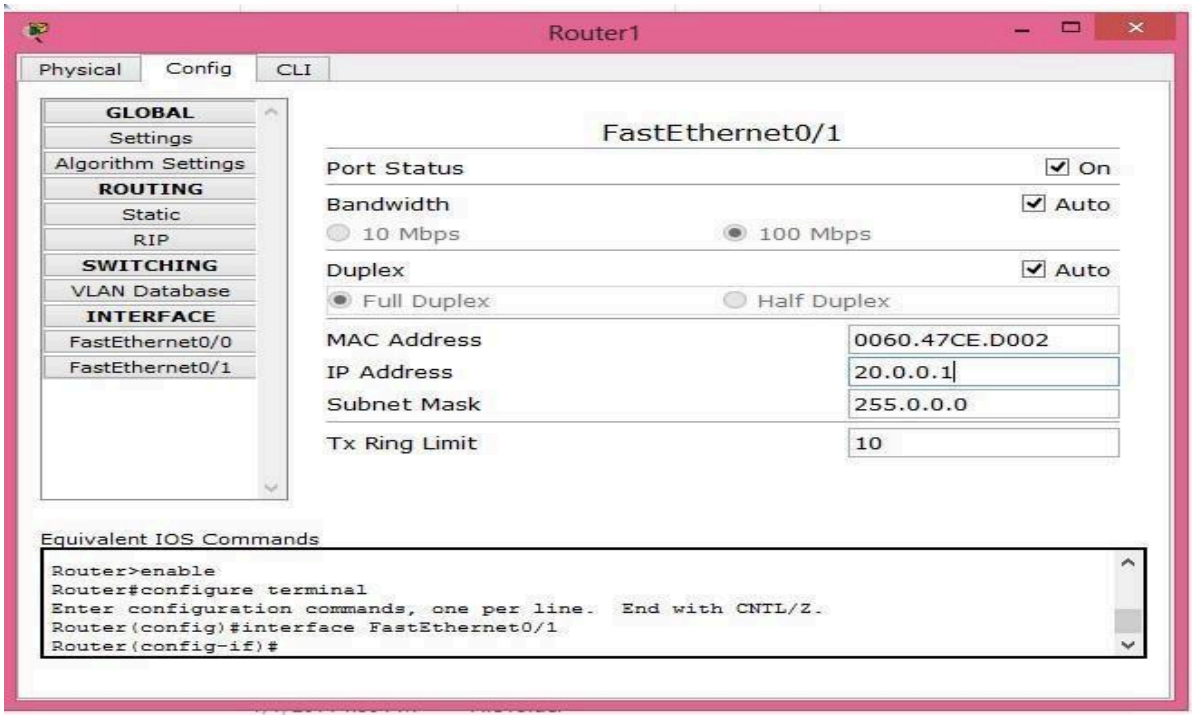
Step 3: (configure Router 0)



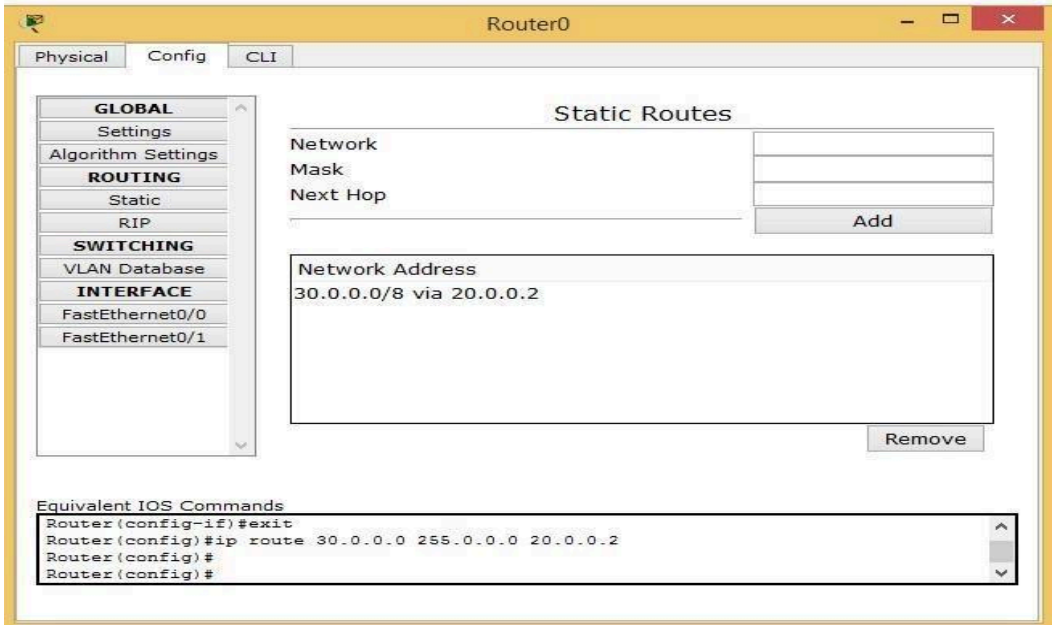


Step 4: (configure Router 1)

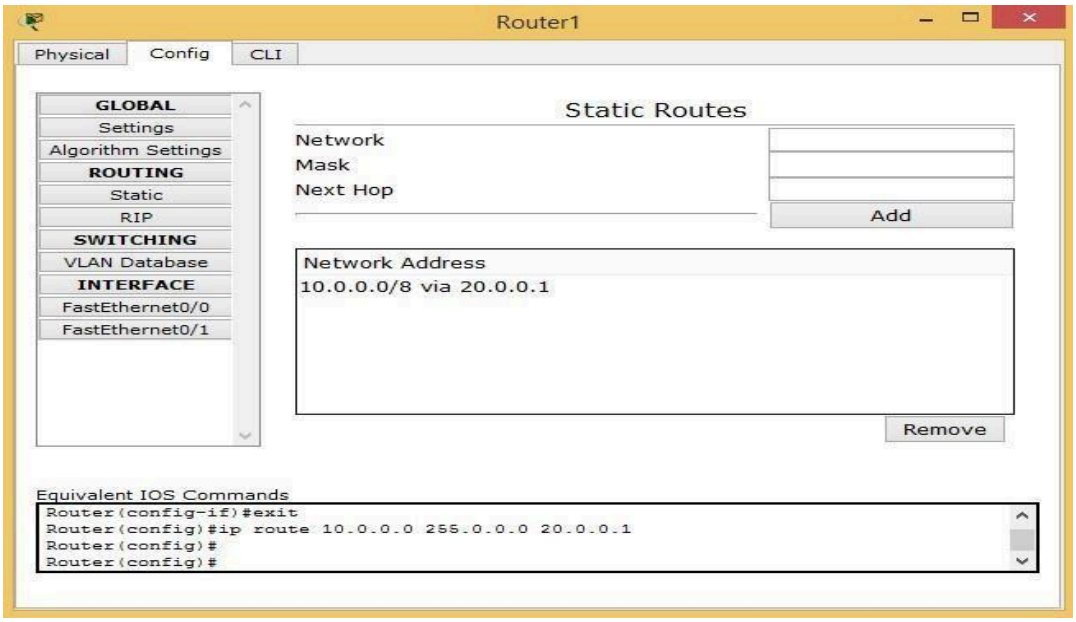
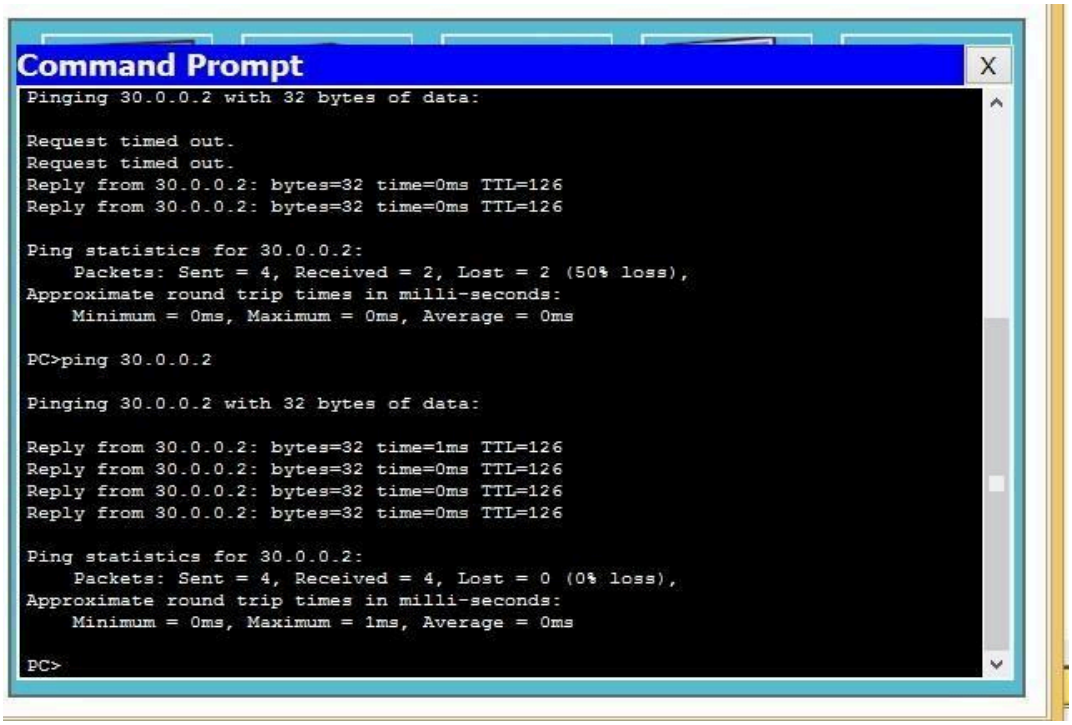




The routing table is configured in the following way For router 0



For router 1



Now we can give the ping command as shown to check the connectivity