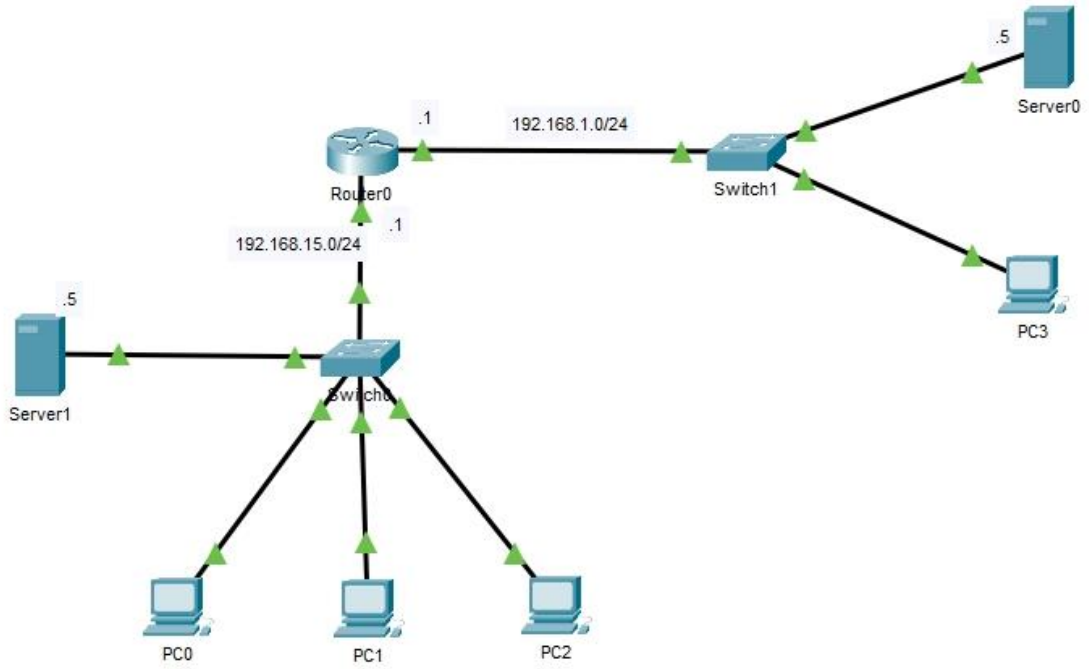
REVISED PACKET TRACER (3)

Prerequisite: *Given* the following network topology:



In the previous practice, the two IP subnet is not seen by each other. This work is a further practice which help setting to make them connected.

1. Verify each subnet configurations

subnet 192.168.1.0/24	**subnet 192.168.15.0/24**
Netmask 255.255.255.0 Gateway IP (router) 192.168.1.1 Server IP (static) 192.168.1.5 - Server requires gateway and netmask configuration	Netmask 255.255.255.0 Gateway IP (router) 192.168.15.1 Server IP (static) 192.168.15.5 - Server requires gateway and netmask configuration
DHCP service: - Start: 192.168.1.100 - mask: 255.255.255.0 - Gateway: 192.168.1.1 - Range: 127	DHCP service: - Start: 192.168.15.100 - mask: 255.255.255.0 - Gateway: 192.168.15.1 - Range: 127

2. Validation step on each subnet:

It need to validate the local subnet reachability:

1) Physical link must be ON for all links
2) DHCP client successfully obtained the IP with correct info:
    a) Gateway IP is correctly assigned to router **associated** port (connect) of the subnet
    b) Netmask
    c) IP **no-duplicate** (all IP are unique) and correct physical port, link ON
3) Reachable link:
    a) ping PC -> Server must be success
    b) ping PC -> router gateway port must be success

If the ping step is fail, you need to back-trace verify these previous step one by one to make sure every item is satisfied. If you are still not able to do the ping successfully, you still have wrong items somewhere.

3. Configure routing rules:

After finishing local subnet verification, config the routing rule in the Router 0

```
Router0#
Router0#
Router0#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router0(config)#route ospf 65001
Router0(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router0(config-router)#network 192.168.15.0 0.0.0.255 area 0
Router0(config-router)#end
Router0#
```

After finish this work, you are now able to create a routing rule between the two different subnets. An extended work in appendix helps upgrade the experiment to involve more subnets and more routing hop.