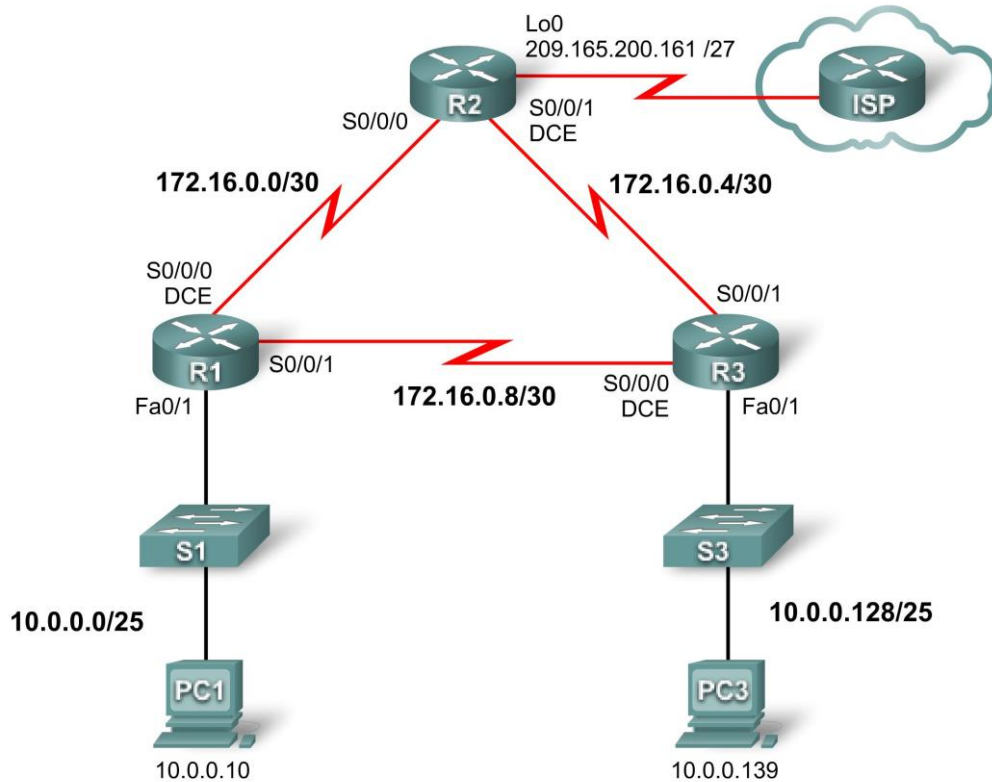


PT Activity 2.5.3: Troubleshooting PPP Configuration

Topology Diagram



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	Fa0/1	10.0.0.1	255.255.255.128	N/A
	S0/0/0	172.16.0.1	255.255.255.252	N/A
	S0/0/1	172.16.0.9	255.255.255.252	N/A
R2	Lo0	209.165.200.161	255.255.255.224	N/A
	S0/0/0	172.16.0.2	255.255.255.252	N/A
	S0/0/1	172.16.0.5	255.255.255.252	N/A
R3	Fa0/1	10.0.0.129	255.255.255.128	N/A
	S0/0/0	172.16.0.10	255.255.255.252	N/A
	S0/0/1	172.16.0.6	255.255.255.252	N/A
PC1	NIC	10.0.0.10	255.255.255.128	10.0.0.1
PC3	NIC	10.0.0.139	255.255.255.128	10.0.0.129

Scenario

The routers at your company were configured by an inexperienced network engineer. Several errors in the configuration have resulted in connectivity issues. Your boss has asked you to troubleshoot and correct the configuration errors and document your work. Using your knowledge of PPP and standard testing methods, find and correct the errors. Make sure that all of the serial links use PPP CHAP authentication, and that all of the networks are reachable.

Task 1: Find and Correct Network Errors

- Use **64000** for all clock rates.
- Use **cisco** for all CHAP passwords.

Task 2: Document the Corrected Network

R1

```
int f0/0          no ip address
int f0/1          ip address 10.0.0.1 255.255.255.128
                  no shutdown
int s0/0/0        ip address 172.16.0.1 255.255.255.252
                  encapsulation ppp
                  ppp authentication chap
int s0/0/1        ppp authentication chap
router ospf       no network 172.16.0.4 0.0.0.3 area 0
                  network 172.16.0.0 0.0.0.3 area 0
username R3 password cisco
```

R2

```
int loop 0        ip address 209.165.200.161 255.255.255.224
                  no shutdown
int fa0/1         no ip address
int s0/0/1        encapsulation ppp
                  ppp authentication chap
                  clock rate 64000
router ospf 1     no network 209.165.200.128 0.0.0.31 area 0
no username R11
no username R3
username R1 password cisco
username R3 password cisco
```

R3

```
int f0/1          ip address 10.0.0.129 255.255.255.128
int s0/0/0        encapsulation ppp
                  ppp authentication chap
int s0/0/1        ip address 172.16.0.6 255.255.255.252
                  ppp authentication chap
router ospf 1     no network 192.16.0.4 0.0.0.3 area 0
                  no network 192.16.0.8 0.0.0.3 area 0
                  network 172.16.0.4 0.0.0.3 area 0
                  network 172.16.0.8 0.0.0.3 area 0
no username R3
username R2 password cisco
```