

CN Lab 11: PPP Configuration

- **Procedure:**

1. **Open Packet Tracer:**

- Launch Cisco Packet Tracer on your computer.

2. **Create a Network:**

- Drag two routers onto the workspace and connect them using a serial connection.
- Connect a computer to each router using Ethernet cables.

3. **Configure IP Addresses:**

- Assign IP addresses to each interface on the routers and computers.

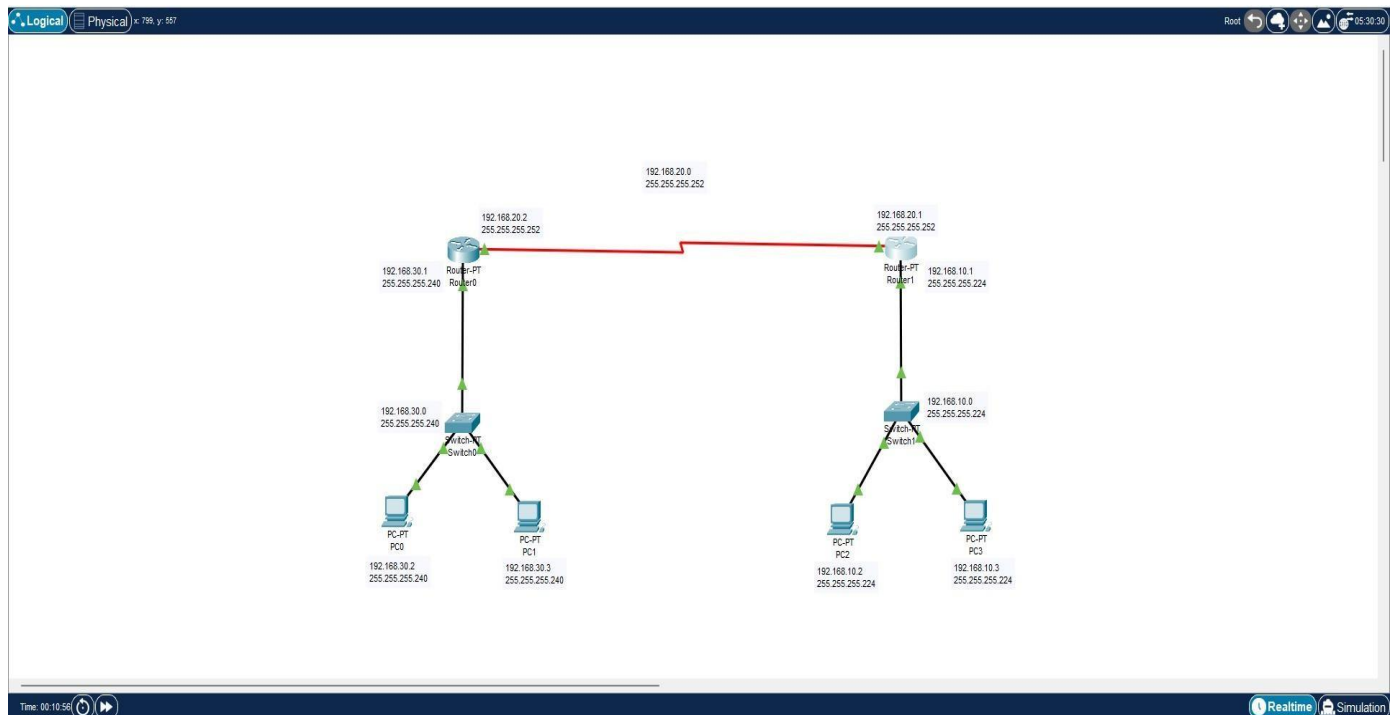
4. **Configure PPP:**

- Access the CLI of each router.
- Enter interface configuration mode for the serial interface: `interface serial 0/0/0`.
- Enable PPP encapsulation: `encapsulation ppp`.

5. **Test Connectivity:**

- Use the `ping` command to test connectivity between the computers.

Output:



Logical Physical x 1440 y 41

Router0

IOS Command Line Interface

```
Press RETURN to get started.

Router>en
Router>conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 2/0
Router(config-if)#clock rate 115200
This command applies only to DCE interfaces
Router(config-if)#encapsulation ppp
Router(config-if)#ppp ?
authentication Set PPP link authentication method
chap          Set CHAP authentication parameters
pap           Set PAP authentication parameters
Router(config-if)#ppp authentication chap
Router(config-if)#ip address 192.168.20.2 255.255.255.252
Router(config-if)#no shut
Router(config-if)#end
Router#
%SYS-6-CONFIG_I: Configured from console by console

Router#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
```

Time: 00:04:34

Scenario 0

File Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Serial DTE

Toggle PDU List Window

Activate Windows
Go to Settings to activate Windows.

Logical Physical x 1440 y 410

Router0

IOS Command Line Interface

```
chap          Set CHAP authentication parameters
pap           Set PAP authentication parameters
Router(config-if)#ppp authentication chap
Router(config-if)#ip address 192.168.20.2 255.255.255.252
Router(config-if)#no shut
Router(config-if)#end
Router#
%SYS-6-CONFIG_I: Configured from console by console

Router#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router#show interface serial 2/0
Serial2/0 is up, line protocol is down (disabled)
Hardware is HD44870
Internet address is 192.168.20.2/30
MTU 1500 bytes, BW 128 Kbit, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set, keepalive set (10 sec)
LCP Closed
Closed: L2TP, BRIDGE, IPCP, CCP, CDPCP, LLC, BACP
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/76/0 (size/max/drops); Total output drops: 0
Queueing strategy: weighted fair
Output queue: 0/100/64/0 (size/max total/threshold/drops)
Conversations 0/0/256 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
Available Bandwidth 94 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts, 0 runs, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
0 packets output, 0 bytes, 0 underruns
--More--
```

Time: 00:09:52

Scenario 0

File Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Serial DTE

Toggle PDU List Window

Activate Windows
Go to Settings to activate Windows.

Logical Physical x 400 y 20

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```

Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63490K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINE-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to down

Router>en
Router>conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 2/0
Router(config-if)#encapsulation ppp
Router(config-if)#ppp ?
    authentication Set PPP link authentication method
    chap           Set CHAP authentication parameters
    pap           Set PAP authentication parameters
Router(config-if)#ppp authentication chap
Router(config-if)#ip address 192.168.20.1 255.255.255.252
Router(config-if)#no shut
Router(config-if)#end
Router#
MSTP-8-CONFIG_1: Configured from console by console

Router#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router#

```

Copy Paste

Time: 00:07:37

Scenario 0

Now Delete

Toggle POV List Window

Realtime Simulation

Activate Windows
Go to Settings to activate Windows.

Logical Physical x 400 y 400

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```

Router#
Router#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router#show interface serial 2/0
Serial2/0 is up, line protocol is down (disabled)
Hardware is HD44570
Internet address is 192.168.20.1/30
MTU 1500 bytes, BW 128 Kbit, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set, keepalive set (10 sec)
LCP Closed
Closed: LENCAP, BRIDGECP, IPCP, CCP, CDPCP, LLC2, BACP
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0 (size/max/drops); Total output drops: 0
Queueing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
Conversations: 0/0/256 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
Available Bandwidth 56 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
0 packets output, 0 bytes, 0 underruns
--More--

```

Copy Paste

Time: 00:10:26

Scenario 0

Now Delete

Toggle POV List Window

Realtime Simulation

Activate Windows
Go to Settings to activate Windows.