

# CN Lab 12: HDLC 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.

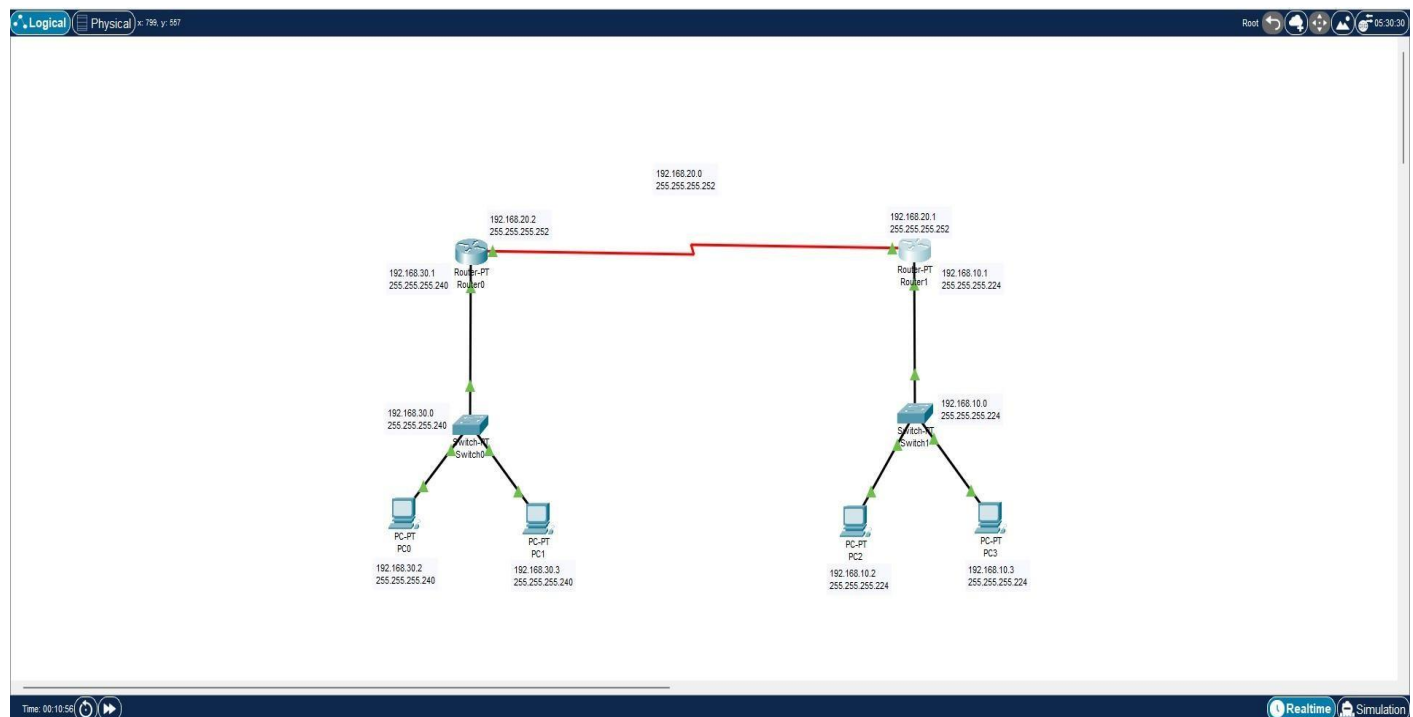
4. **Configure HDLC:**

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

5. **Test Connectivity:**

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

## Output:



Logical Physical x 335, y 541

Router0

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>en
Router>conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface serial 2/0
Router(config-if)#encapsulation hdlc
Router(config-if)#clock rate 120000
This command applies only to DCE interfaces
Router(config-if)#ip address 192.168.20.2 255.255.255.252
Router(config-if)#no shut
Router(config-if)#end
Router#
*NSIS-3-CONFIG_I: Configured from console by console

Router#show interface serial 2/0
Serial2/0 is up, line protocol is down (disabled)
Hardware is HD64570
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 HDLC, loopback not set, keepalive set (10 sec)
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 96 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
0 output errors, 0 collisions, 0 interface resets
0 output buffer failures, 0 output buffers swapped out
--More--
```

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Time: 00:15:19

Realtime Simulation

Logical Physical x 154, y 352

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface serial 2/0
Router(config-if)#encapsulation hdlc
Router(config-if)#
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#ip address 192.168.20.1 255.255.255.252
Router(config-if)#no shut
Router(config-if)#end
Router#
*NSIS-3-CONFIG_I: Configured from console by console

Router#show interface serial 2/0
Serial2/0 is up, line protocol is up (connected)
Hardware is HD64570
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 HDLC, loopback not set, keepalive set (10 sec)
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
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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
0 output errors, 0 collisions, 0 interface resets
0 output buffer failures, 0 output buffers swapped out
--More--
```

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Realtime Simulation