

Exercise – 11 HDLC-Configuration

Aim

To Configure HDLC Protocol

Prerequisite:

HDLC Protocol

Procedure:

1. From the Network Devices category, select routers, and from the devices drag 2 routers into the workspace.
2. Connect connect routers using serial DTE cables.
3. To configure Cisco HDLC, firstly we will enable HDLC under the interface and after that, we will configure interface ip addresses. To enable HDLC, we will use “encapsulation hdlc” command under the interface. Here, we will do this under serial 0/0/0 interface.



4. Use the following commands to configure the router R1 using CLI

```
Router1>enable
Router1# configure terminal
Router1(config) # interface Serial 0/0/0
Router1(config-if) # encapsulation hdlc
Router1(config-if) # ip address 10.10.10.1 255.255.255.252
Router1(config-if) # exit
```

IOS Command Line Interface

DRAM configuration is 64 bits wide with parity disabled.
255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!

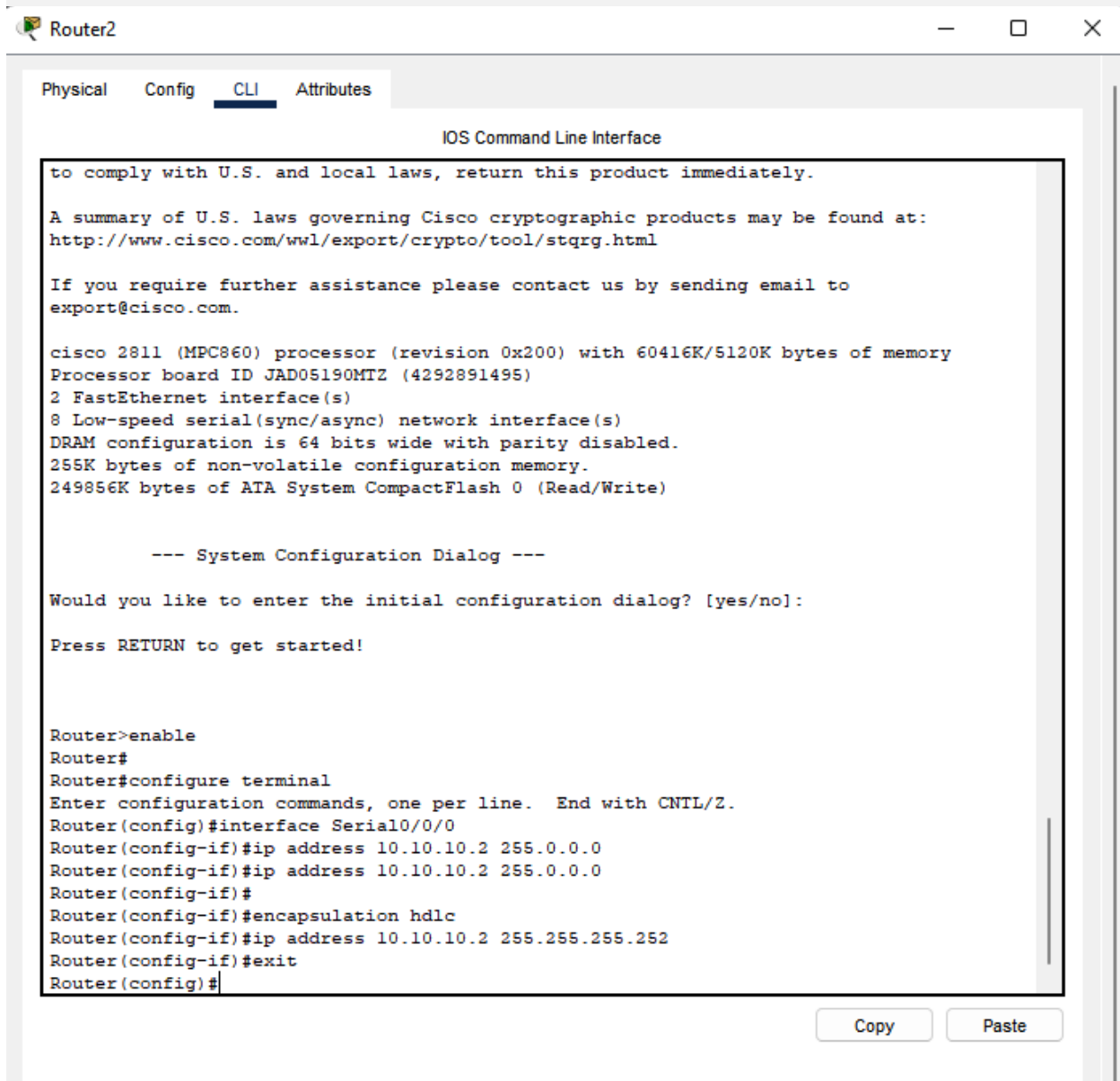
```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/0/0
Router(config-if)#ip address 10.10.10.1 255.0.0.0
Router(config-if)#ip address 10.10.10.1 255.0.0.0
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/0/0
Router(config-if)#no shut

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
Router(config-if)#
Router(config-if)#exit
Router(config)#int Serial 0/0/0
Router(config-if)#encapsulation hdlc
Router(config-if)#ip address 10.10.10.1 255.255.255.252
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#interface Serial0/0/0
Router(config-if)#
```

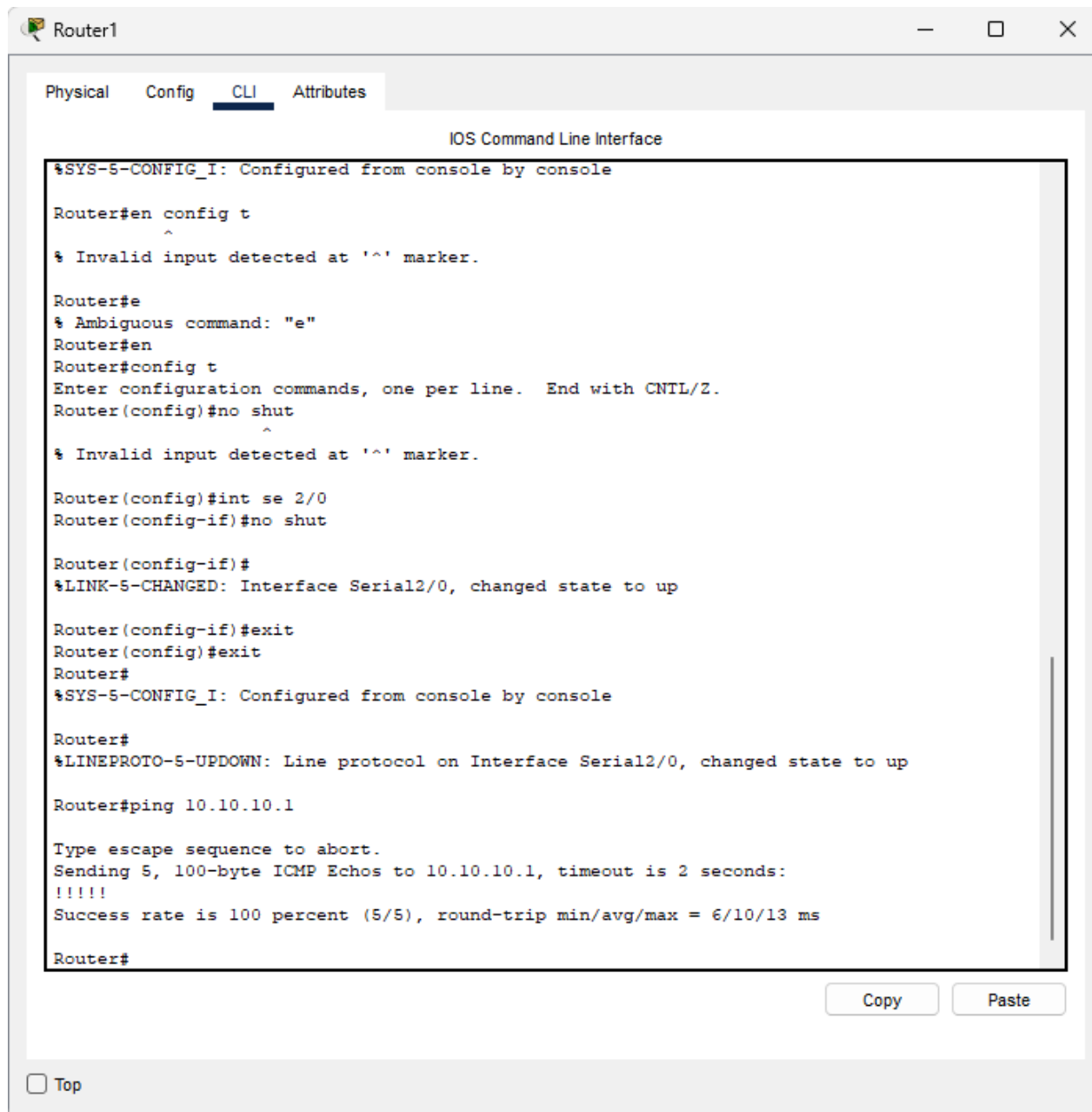
[Copy](#)[Paste](#)

5. Use the following commands to configure the router R2 using CLI

```
Router2>enable
Router2# configure terminal
Router2(config) # interface Serial 0/0/0
Router2(config-if) # encapsulation hdlc
Router2(config-if) # ip address 10.10.10.2 255.255.255.252
Router2(config-if) # exit
```



6. To verify Cisco HDLC configuration, on both routers we will use ping command.



The screenshot shows a Cisco Packet Tracer console window for Router1. The window has tabs for Physical, Config, CLI, and Attributes, with CLI selected. The title bar says "Router1". The main area is titled "IOS Command Line Interface" and contains the following text:

```
%SYS-5-CONFIG_I: Configured from console by console

Router#en config t
      ^
% Invalid input detected at '^' marker.

Router#e
% Ambiguous command: "e"
Router#en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#no shut
      ^
% Invalid input detected at '^' marker.

Router(config)#int se 2/0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router#ping 10.10.10.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.10.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 6/10/13 ms

Router#
```

At the bottom right of the console window are "Copy" and "Paste" buttons. At the bottom left of the window is a "Top" button.

CONCLUSION

We have successfully configured PPP configuration on two router using cisco packet tracer.

