

# **COMPUTER NETWORKS LAB**



HOME WORK

LAB # 03

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# 1. Setting Router Modes on 2600 Series Router.

Router4

Physical Config CLI Attributes

IOS Command Line Interface

Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

Cisco CISCO2901/K9 (revision 1.0) with 491520K/32768K bytes of memory.  
Processor board ID FTX152400KS  
2 Gigabit Ethernet interfaces  
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)

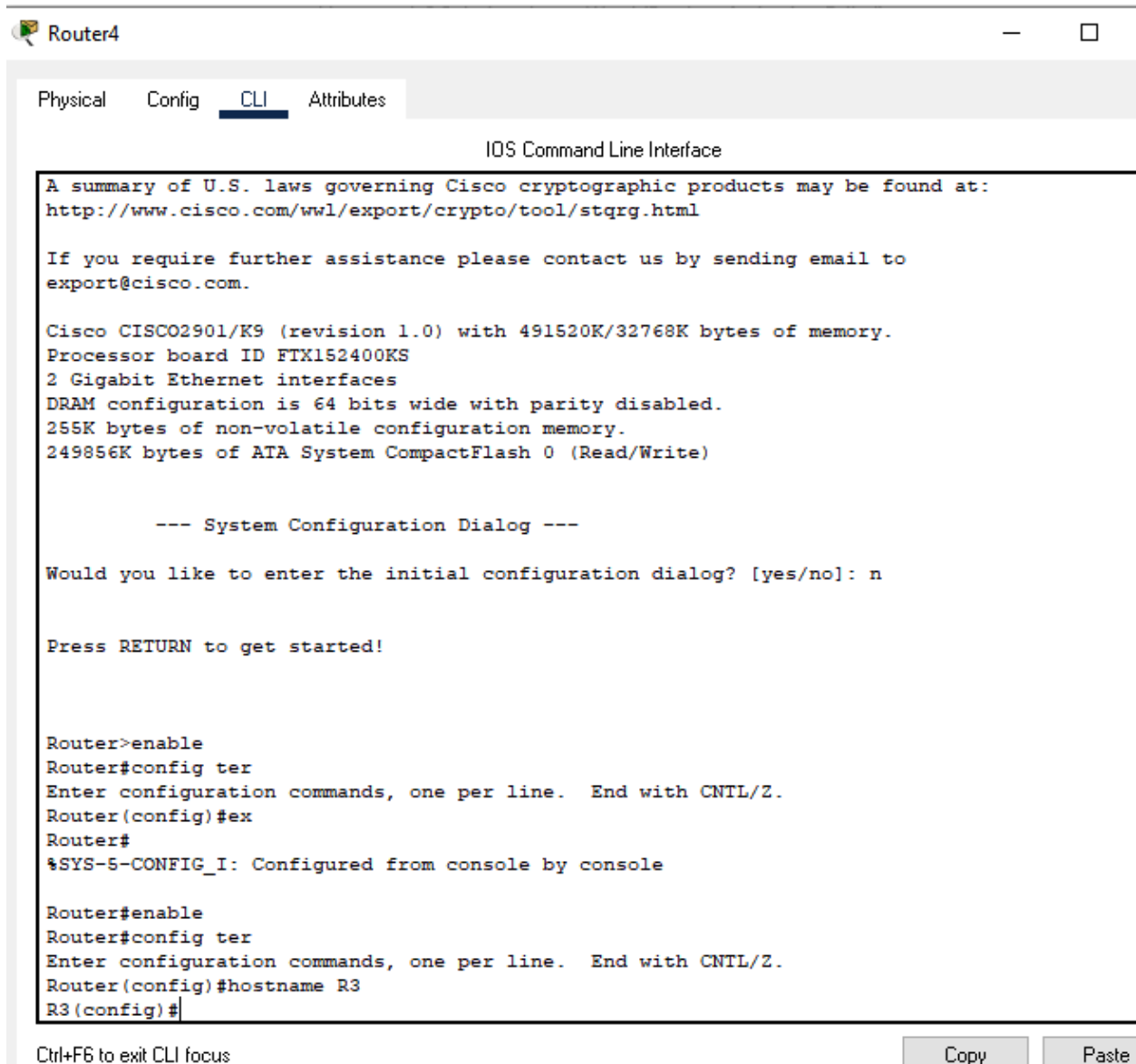
--- System Configuration Dialog ---

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

Press RETURN to get started!

Router>enable  
Router#config ter  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#ex  
Router#  
%SYS-5-CONFIG\_I: Configured from console by console

## 2. Changing Hostname of the Router.



The screenshot shows a web-based interface for a Cisco router named 'Router4'. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The interface shows the initial configuration dialog, including a summary of the router's hardware (Cisco CISC02901/K9, 491520K/32768K bytes of memory, 2 Gigabit Ethernet interfaces, etc.) and a prompt to enter the initial configuration dialog. The user has entered 'n' for 'no'. The user then enters 'enable' to enter privileged EXEC mode, followed by 'config ter' to enter global configuration mode. The user enters 'ex' to exit configuration mode. The user then enters 'enable' again to enter privileged EXEC mode, followed by 'config ter' to enter global configuration mode. The user enters 'hostname R3' to change the router's name. The prompt changes from 'Router(config)#' to 'R3(config)#'.

```
Router4
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IOS Command Line Interface
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--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n
Press RETURN to get started!
Router>enable
Router#config ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#enable
Router#config ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R3
R3(config)#
```

Ctrl+F6 to exit CLI focus

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## 3. Configuring Date and Time on the Router (Clock Set Command)

```
R1#clock set 12:15:00
% Incomplete command.
R1#clock set 1:53:00 21 september 2022
R1#
```

## 4. Setting a banner on the Router

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

R3#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#banner motd#Wellcome to CN lab
      ^
% Invalid input detected at '^' marker.

R3(config)#banner motd # Wellcome to CN lab
Enter TEXT message.  End with the character '#'.

```

## 5. Displaying the Router's Running-Configuration and Start-Up Configuration

Router5

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#enable
Router#show running-config
Building configuration...

Current configuration : 610 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
license udi pid CISCO2901/K9 sn FTX1524BN2S-
!
!
!
!
!
```

Ctrl+F6 to exit CLI focus

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## 6. Enable Password and Enable Secret Password with the Encryption Techniques/Levels

```
Welcome To CN Lab

banner motd

User Access Verification

Password:

R1>enable
R1#
```

Ctrl+F6 to exit CLI focus

```
banner motd

User Access Verification

Password:

R1>enable
R1#configure ter
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#line vty 0 4
R1(config-line)#password NP456
R1(config-line)#login
R1(config-line)#exit
R1(config)#line aux 0
R1(config-line)#password NP@789
R1(config-line)#EXIT
R1(config)#login
^
% Invalid input detected at '^' marker.

R1(config)#login
^
% Invalid input detected at '^' marker.

R1(config)#
```

Ctrl+F6 to exit CLI focus

## 7. Line Console Password Implementation on CISCO 2600 Series Router

```
#configure terminal
(config)#line console 0
(config-line)#password NP123
(config-line)#login
(config-line)#end
```

```
R1>CONFIG TER
R1>^
% Invalid input detected at '^' marker.
R1>enable
Password:
R1#
```

## 8. What is Telnet? How to Telnet? + Line VTY/Telnet Password

Telnet is a network protocol used to virtually access a computer and to provide a two-way, collaborative and text-based communication channel between two machines

```
P# configure terminal
P(config)# line vty 0 4
P(config-line) # password NP456
P(config-line)# login
P(config-line)# exit
P(config)# exit
P#
```

```
Enter configuration commands, one per line. End with CNTL/Z.  
R1(config)#enable secret NP333  
R1(config)#exit  
R1#  
%SYS-5-CONFIG_I: Configured from console by console  
R1#
```

## 9. Usage of Router with different topology.

