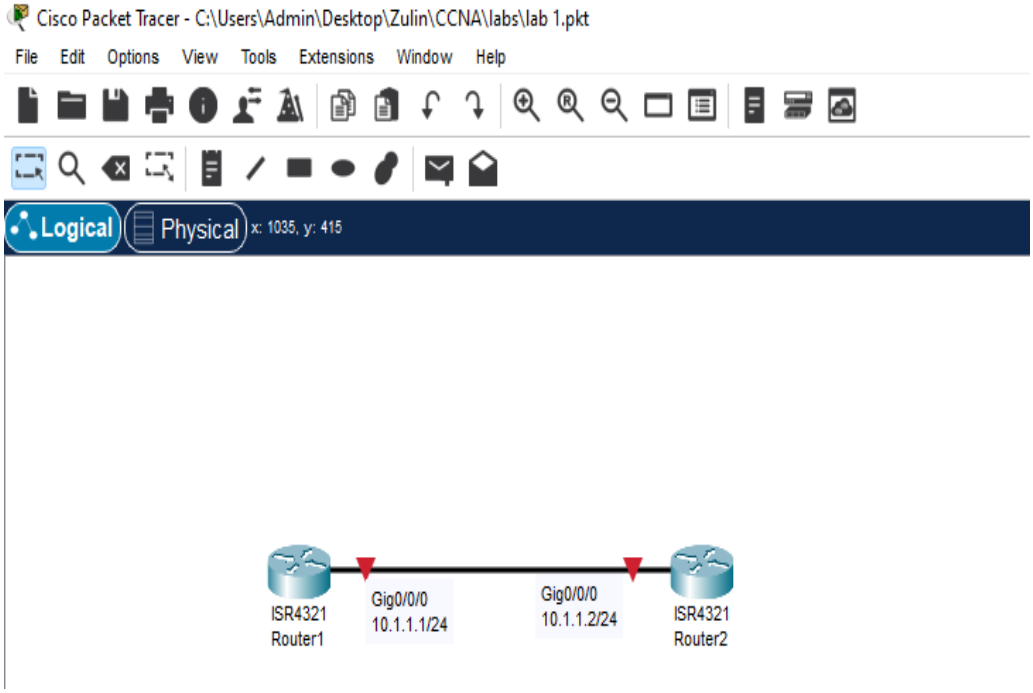
Tasks 1:

Power on devices and then configure the devices as follows:

1) Configure IP addresses as shown in the diagram
2) Ensure routers can ping each other
3) Configure an enable password of "cisco"
4) Encrypt the enable password
5) Configure a secret password of "cisco123"
6) Configure the first 5 telnet lines and use a line password of cisco on them
7) Make sure you can telnet from one device to the other
8) Configure a console password of "cisco" and test

Task 2:

Do the initial configuration of a Router


Cisco Packet Tracer - C:\Users\Admin\Desktop\Zulin\CCNA\labs\lab 1.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 1035, y: 415
ISR4321
Router1
Gig0/0/0
10.1.1.1/24
Gig0/0/0
10.1.1.2/24
ISR4321
Router2

Tasks 1: Power on devices and then configure the devices as follows:

1) **Configure IP addresses as shown in the diagram**

Router 1

IOS Command Line Interface

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int
Router(config)#interface gig
Router(config)#interface gigabitEthernet 0/0/0
Router(config-if)#ip add
Router(config-if)#ip address 10.1.1.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

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

Router#show ip inter
Router#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0/0   10.1.1.1        YES manual up                    down
GigabitEthernet0/0/1   unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
Router#show run
Building configuration...

Current configuration : 571 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
```

Router 2

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>en
Router#config t
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int
Router(config)#interface giga
Router(config)#interface gigabitEthernet 0/0/0
Router(config-if)#ip add
Router(config-if)#ip address 10.1.1.2 255.255.255.0
Router(config-if)#no shu
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up

Router(config-if)#exit
Router(config)#do show ip int
Router(config)#do show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0/0   10.1.1.2        YES manual up                    up
GigabitEthernet0/0/1   unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
Router(config)#do show run
Building configuration...

Current configuration : 571 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
```

2) **Ensure routers can ping each other**

Router 1

```
Router#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, char

Router#ping 10.1.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.2, timeout is 2 seconds:
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/0/0 ms
```

Router 2

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

Router#ping 10.1.1.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms

Router#
```

3) Configure an enable password of "cisco"

Router 1

Physical Config CLI Attributes

IOS Command Line Interface

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.2, timeout is 2 seconds:
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/0/0 ms

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Router1
Router1(config)#enable p
Router1(config)#enable password cisco
Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#show run
Building configuration...

Current configuration : 596 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router1
!
!
!
enable password cisco
!
!
!
```

```
Router1>en
Password:
Router1#
```

Router 2

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Router2
Router2(config)#enable pass
Router2(config)#enable password cisco
Router2(config)#do show run
Building configuration...

Current configuration : 596 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router2
!
!
!
enable password cisco
!
!
!
!
!
!
ip cef
no ipv6 cef
 --More--
```

```
Router2>en
Password:
Router2#
```

4) Encrypt the enable password

Router 1

```
Router1>en
Password:
Router1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#service pass
Router1(config)#service password-encryption
Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#show run
Building configuration...

Current configuration : 602 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router1
!
!
!
enable password 7 0822455D0A16
!
!
```

Router 2

```
Router2>en
Password:
Router2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router2(config)#ser
Router2(config)#service pass
Router2(config)#service password-encryption
Router2(config)#do show run
Building configuration...

Current configuration : 602 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router2
!
!
!
enable password 7 0822455D0A16
!
!
!
!
!
!
ip cef
no ipv6 cef
 --More--
```

5) **Configure a secret password of "cisco123"**

Router 1

```
Router1#config t
Router1#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#enable se
Router1(config)#enable secret cisco123
Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#show run
Building configuration...

Current configuration : 649 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
!
!
```

Router 2

```
Router2(config)#enable secre
Router2(config)#enable secret cisco123
Router2(config)#do show run
Building configuration...

Current configuration : 649 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router2
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
```

6) **Configure the first 5 telnet lines and use a line password of cisco on them**
7) **Make sure you can telnet from one device to the other**

Router 1

```
Router1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#line vty 0 4
Router1(config-line)#login
% Login disabled on line 2, until 'password' is set
% Login disabled on line 3, until 'password' is set
% Login disabled on line 4, until 'password' is set
% Login disabled on line 5, until 'password' is set
% Login disabled on line 6, until 'password' is set
Router1(config-line)#pass
Router1(config-line)#password cisco
Router1(config-line)#exit
Router1(config)#telnet 10.1.1.2
                   ^
% Invalid input detected at '^' marker.

Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#telnet 10.1.1.2
Trying 10.1.1.2 ...Open


User Access Verification

Password:
Router2>
```

Router 2

```
Router2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router2(config)#line vty 0 4
Router2(config-line)#login
Router2(config-line)#password cisco
Router2(config-line)#exit
Router2(config)#exit
Router2#
%SYS-5-CONFIG_I: Configured from console by console

Router2#telnet 10.1.1.1
Trying 10.1.1.1 ...Open


User Access Verification

Password:
Router1>
```

8) **Configure a console password of "cisco" and test**

Router 1

```
Router1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#line con 0
Router1(config-line)#password cisco
Router1(config-line)#exit
Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#exit









Router1 con0 is now available




Press RETURN to get started.
```

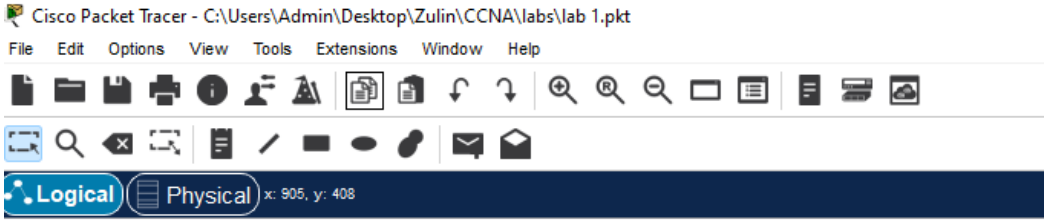
```
User Access Verification

Password:

Router1>en
Password:
Password:
Router1#
```

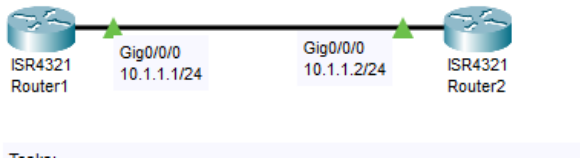
Router 2

```
Router2>
Router2>en
Password:
Password:
Router2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router2(config)#line con 0
Router2(config-line)#login
Router2(config-line)#password cisco
Router2(config-line)#exit
Router2(config)#exit
Router2#
%SYS-5-CONFIG_I: Configured from console by console

Router2#exit









Router2 con0 is now available




Press RETURN to get started.
```

```
User Access Verification

Password:

Router2>en
Password:
Router2#
```

All configurations are done





- Let’s check the running config and start-up config:

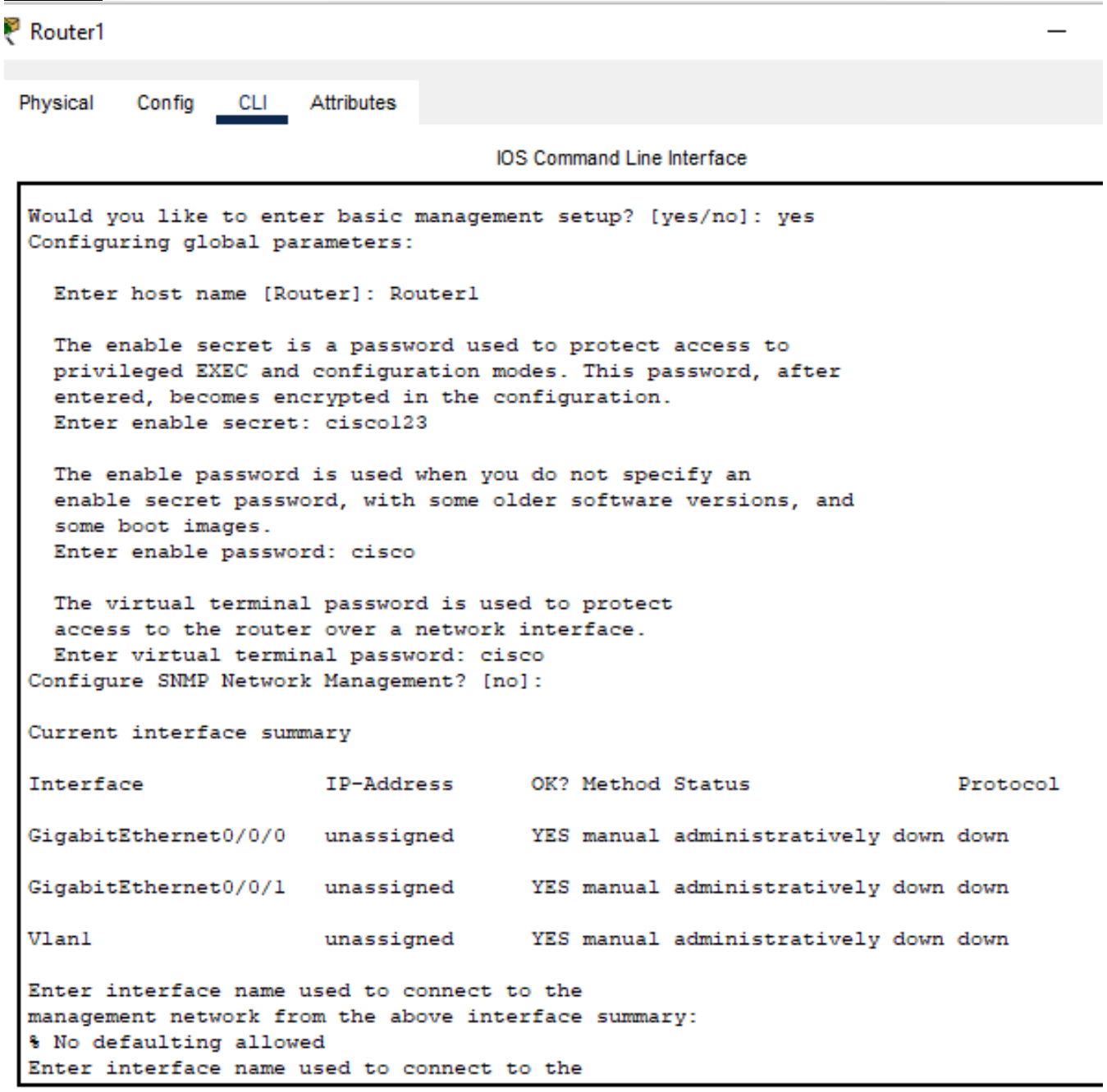
As I didn’t configure the router in the starting, startup-config is not present

```
Router1#show runn
Router1#show running-config
Building configuration...

Current configuration : 706 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
!
!
!
ip cef

Router1#show star
Router1#show startup-config
startup-config is not present
Router1#
Router1#
```

- **Copy running config in start-up config**

```
ip cef

Router1#show star
Router1#show startup-config
startup-config is not present
Router1#
Router1#copy ru
Router1#copy running-config st
Router1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router1#show startup
Router1#show startup-config
Using 706 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Router1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
!
!
!
!
!
ip cef
no ipv6 cef
!
 --More--
```

Task 2: Do the initial configuration of a Router



IOS Command Line Interface

```
management network from the above interface summary: GigabitEthernet0/0/0

Configuring interface GigabitEthernet0/0/0:
  Configure IP on this interface? [yes]: yes
    IP address for this interface: 10.1.1.1
    Subnet mask for this interface [255.0.0.0] : 255.255.255.0

The following configuration command script was created:

!
hostname Router1
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password cisco
line vty 0 4
password cisco
!
interface Vlan1
 shutdown
 no ip address
!
interface GigabitEthernet0/0/0
 no shutdown
 ip address 10.1.1.1 255.255.255.0
!
interface GigabitEthernet0/0/1
 shutdown
 no ip address
!
end

[0] Go to the IOS command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to nvram and exit.

Enter your selection [2]: 2
```

IOS Command Line Interface

```
Enter your selection [2]: 2
Building configuration...
[OK]
Use the enabled mode 'configure' command to modify this configuration.


Press RETURN to get started!


%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINK-5-CHANGED: Interface Vlan1, changed state to administratively down

%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to administratively down

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


Router1>en
Password:
Router1#show run
Building configuration...

Current configuration : 659 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
```

Physical Config CLI Attributes

IOS Command Lin

```
Router1>en
Password:
Router1#show run
Building configuration...

Current configuration : 659 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password cisco
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
```

IOS Command Line Interface

```
Router1#en
Router1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#hostname R1
R1(config)#service pass
R1(config)#service password-encryption
R1(config)#show runn
R1(config)#show run
              ^
% Invalid input detected at '^' marker.

R1(config)#do show run
Building configuration...

Current configuration : 669 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
```

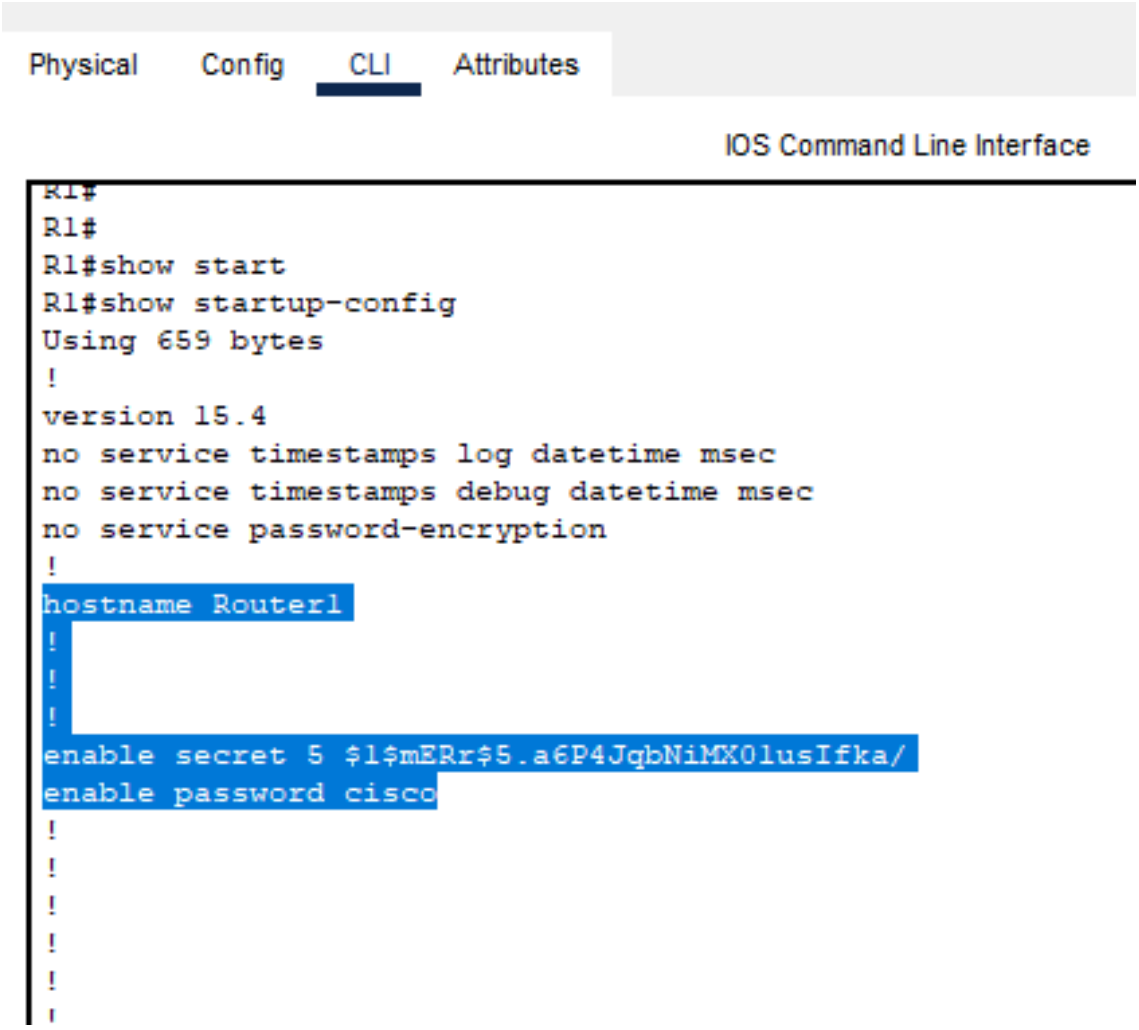
- **<u>Compare running config and start-up config:</u>**

When I change anything in configuration it will show in running configuration and nothing will change in startup configuration unless I copy running configuration into start-up configuration.

Physical Config CLI Attributes

IOS Command Line Interface

```
!
!
end


R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show runn
R1#show running-config
Building configuration...

Current configuration : 669 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
!
!
!
!
!
ip cef

R1#
```



R1#copy running-config start
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]

```
R1#copy runn
R1#copy running-config start
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R1#show start
R1#show startup-config
Using 669 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$5.a6P4JqbNiMX0lusIfka/
enable password 7 0822455D0A16
!
!
!
!
!
!
ip cef
no ipv6 cef
!
```