

C: Configure rip on route

Router1

PhysicalConfigCLIAttributes

IOS Command Line Interface

```
rl>en
rl#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
rl(config)#router rip
rl(config-router)#network 192.168.1.0
rl(config-router)#network 10.1.1.0
rl(config-router)#exit
rl(config)#sh ip route
^
% Invalid input detected at '^' marker.

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

rl#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

      10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.1.1.0/30 is directly connected, Serial0/0/0
L       10.1.1.2/32 is directly connected, Serial0/0/0
      192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, GigabitEthernet0/1
L       192.168.1.1/32 is directly connected, GigabitEthernet0/1

rl#exit
```

Ctrl+F6 to exit CLI focus

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Router0

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
r2>EN
r2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
r2(config)#router rip
r2(config-router)#network 10.1.1.0
r2(config-router)#network 192.168.2.0
r2(config-router)#network 10.2.2.0
r2(config-router)#exit
r2(config)#exit
r2#
%SYS-5-CONFIG_I: Configured from console by console

r2#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

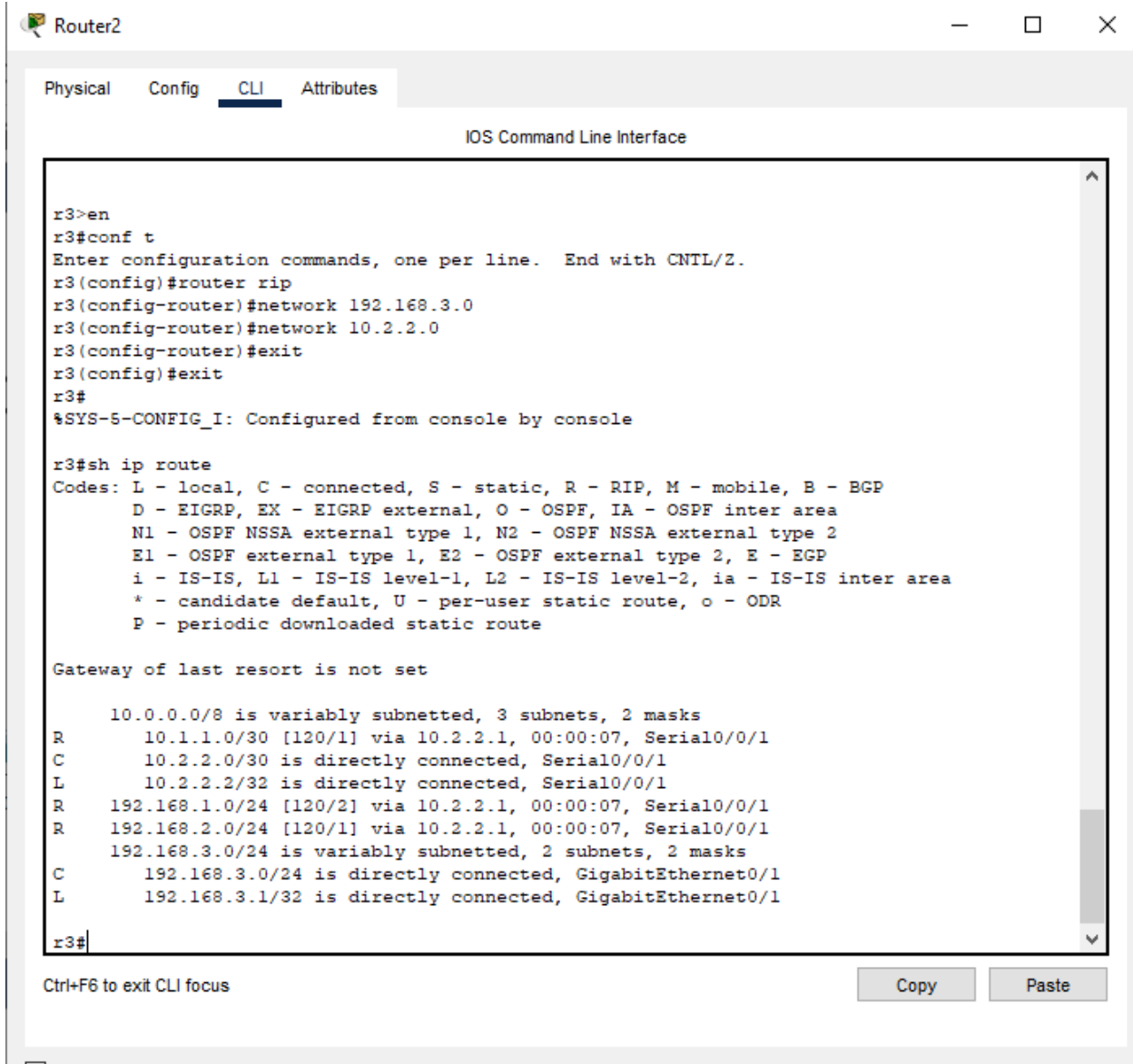
    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C       10.1.1.0/30 is directly connected, Serial0/0/0
L       10.1.1.1/32 is directly connected, Serial0/0/0
C       10.2.2.0/30 is directly connected, Serial0/0/1
L       10.2.2.1/32 is directly connected, Serial0/0/1
R       192.168.1.0/24 [120/1] via 10.1.1.2, 00:00:17, Serial0/0/0
        192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, GigabitEthernet0/0
L       192.168.2.1/32 is directly connected, GigabitEthernet0/0

r2#
```

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D: Configure local AAA authentication on Router 1

IOS Command Line Interface

```
rl>en
rl#conf t
Enter configuration commands, one per line. End with CNTL/Z.
rl(config)#username bhargavi secret ty23
rl(config)#aaa new-model
rl(config)#aaa authentication login default local
rl(config)#line console 0
rl(config-line)#login authentication default
rl(config-line)#^
% Invalid input detected at '^' marker.

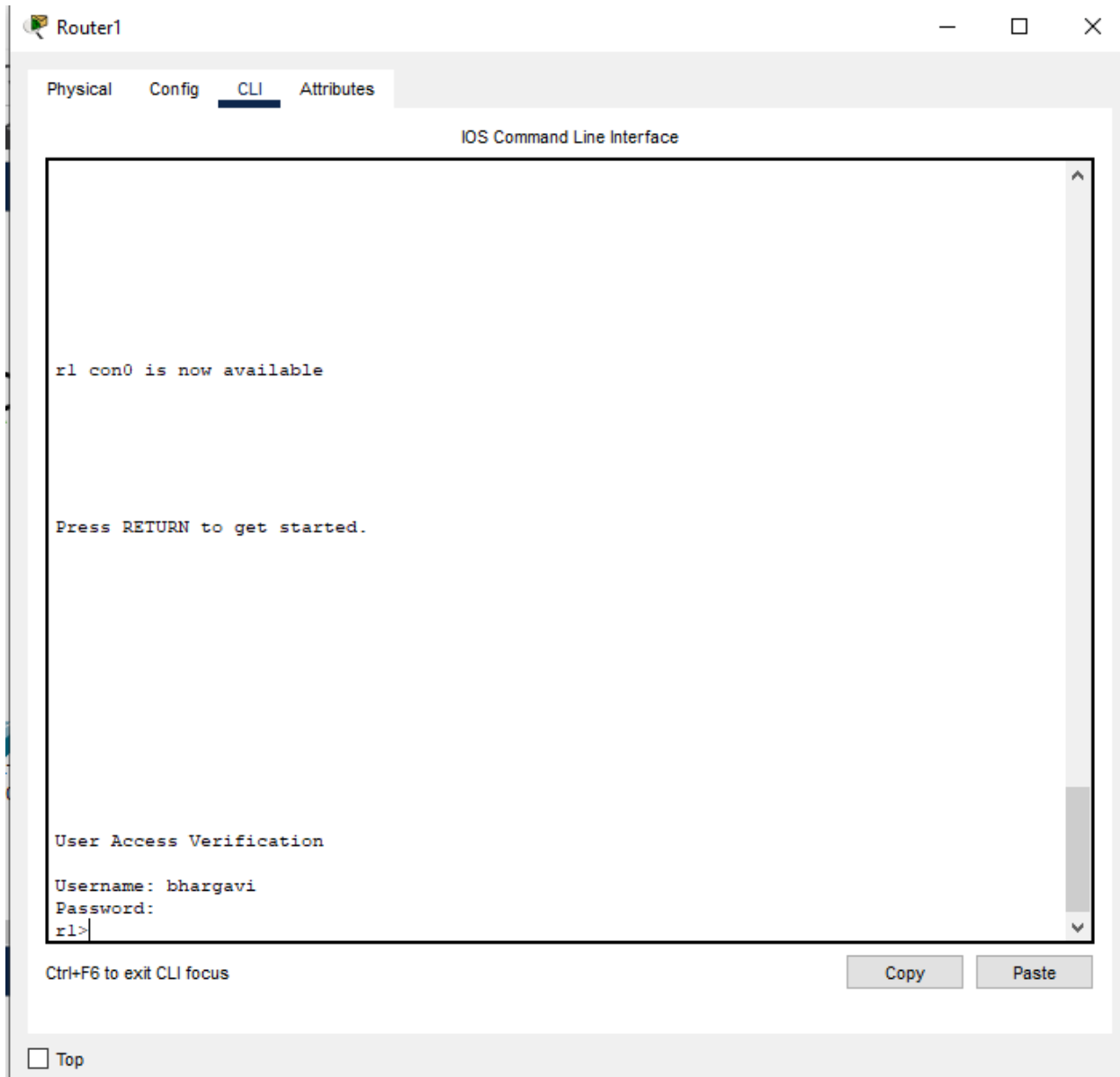
rl(config-line)#^Z
rl#
%SYS-5-CONFIG_I: Configured from console by console

rl#exit
```

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E: Configure local AAA authentication for vty lines on Router 1

IOS Command Line Interface

User Access Verification

Username: bhargavi

Password:

rl>en

rl#conf t

Enter configuration commands, one per line. End with CNTL/Z.

rl(config)#ip domain-name security.com

rl(config)#crypto key generate rsa

The name for the keys will be: rl.security.com

Choose the size of the key modulus in the range of 360 to 2048 for your
General Purpose Keys. Choosing a key modulus greater than 512 may take
a few minutes.

How many bits in the modulus [512]: 1024

% Generating 1024 bit RSA keys, keys will be non-exportable...[OK]

rl(config)#line vty 0 4

*Mar 1 0:37:27.279: %SSH-5-ENABLED: SSH 1.99 has been enabled

rl(config-line)#login authentication SSH-LOGIN

AAA: Warning authentication list SSH-LOGIN is not defined for LOGIN

rl(config-line)#transport input ssh

rl(config-line)#^Z

rl#

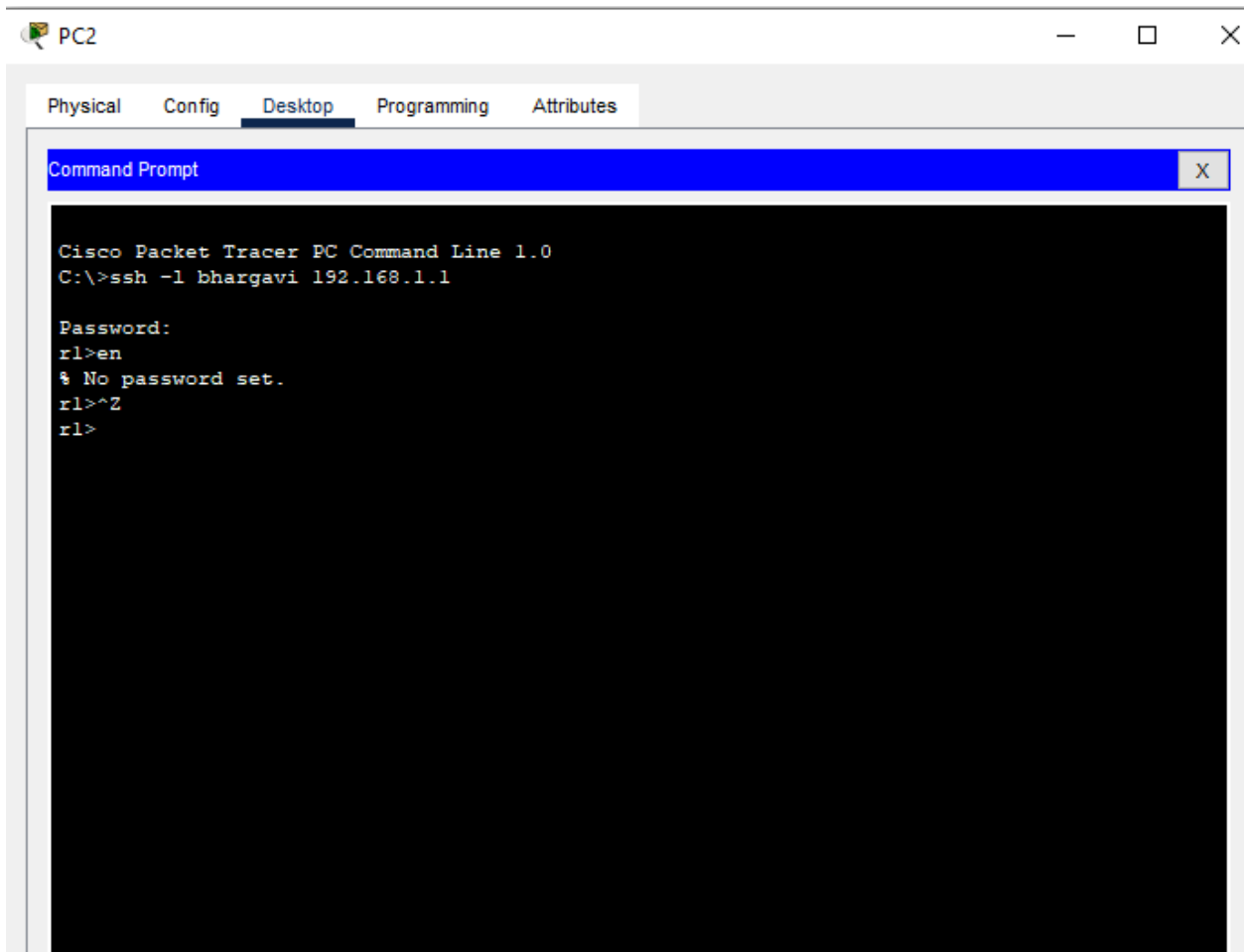
%SYS-5-CONFIG_I: Configured from console by console

rl#

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Physical Config **Services** Desktop Programming Attributes**SERVICES**

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

AAA

Service

☒ On ☐ Off

Radius Port

1645

Network Configuration

Client Name

Client IP

Secret

ServerType

Radius

	Client Name	Client IP	Server Type	Key	
1	r2	192.168.2.1	Tacacs	pwdr2	

Add

Save

Remove

User Setup

Username

Password

	Username	Password	
1	admin	admin64	

Add

Save

Remove

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

```
r2>en
r2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
r2(config)#username admin secret admin64
r2(config)#tacacs-server host 192.168.2.2
r2(config)#tacacs-server key pwdr2
r2(config)#aaa new-model
r2(config)#aaa authentication login default group tacacs+ local
r2(config)#line console 0
r2(config-line)#login authentication default
r2(config-line)#^Z
r2#
%SYS-5-CONFIG_I: Configured from console by console
r2#exit
```

Ctrl+F6 to exit CLI focus

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Physical Config CLI Attributes

IOS Command Line Interface

r2 con0 is now available

Press RETURN to get started.

User Access Verification

Username: admin

Password:

r2>

Ctrl+F6 to exit CLI focus

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Physical Config **Services** Desktop Programming Attributes**SERVICES**

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

AAA

Service

☒ On ☐ Off

Radius Port

1645

Network Configuration

Client Name

Client IP

Secret

ServerType

Radius

	Client Name	Client IP	Server Type	Key
1	r3	192.168.3.1	Radius	pwdr3

Add

Save

Remove

User Setup

Username

Password

	Username	Password
1	bhargavi	thati64

Add

Save

Remove

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

```
r3>en
r3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
r3(config)#username bhargavi secret thati64
r3(config)#radius-server host 192.168.3.2
r3(config)#radius-server key pwdr3
r3(config)#aaa new-model
r3(config)#aaa authentication login group radius local
r3(config)#aaa authentication login default group radius local
r3(config)#line console 0
r3(config-line)#login authentication default
r3(config-line)#
```

Ctrl+F6 to exit CLI focus

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Router2



Physical

Config

CLI

Attributes

IOS Command Line Interface

r3 con0 is now available

Press RETURN to get started.

User Access Verification

Username: bhargavi

Password:

r3>

Ctrl+F6 to exit CLI focus

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