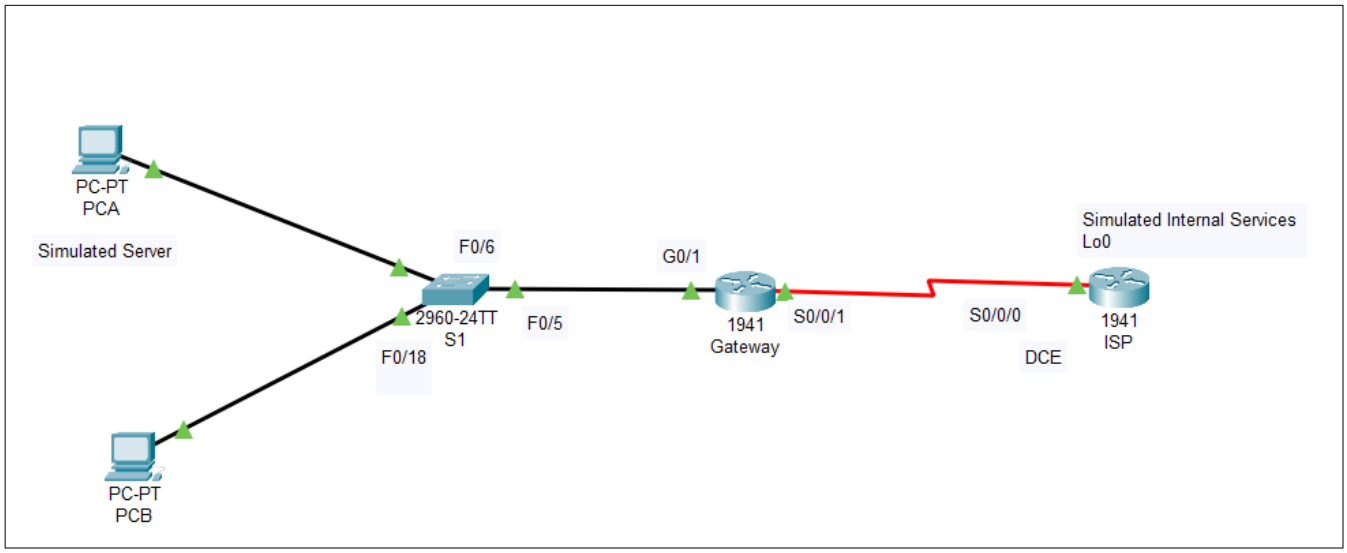
DCCN ISE 2

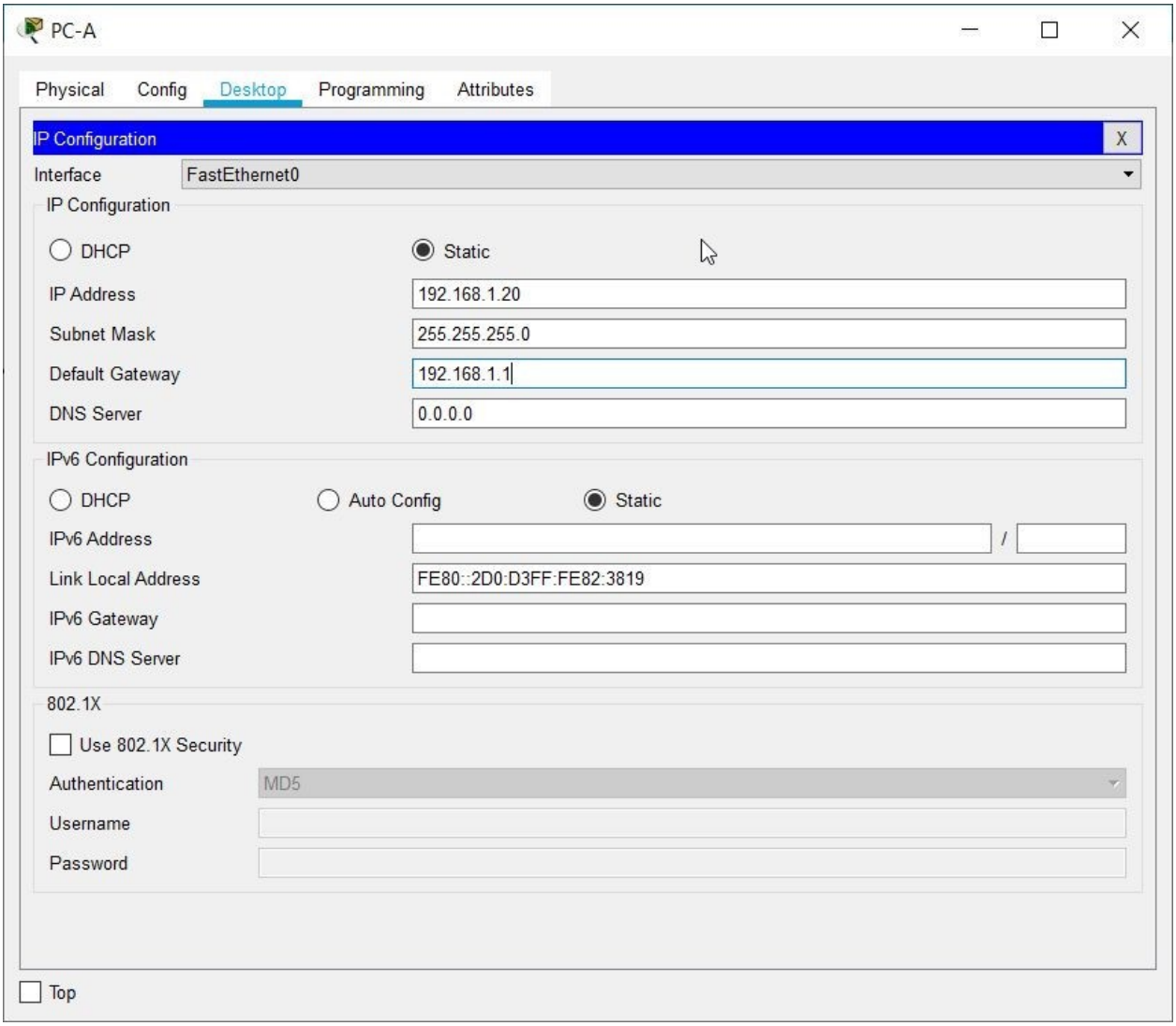
Batch : B
Group: 6
Bhushan Koyande - 2018130021
Shyam Mehta- 2018130027

TASK 1:

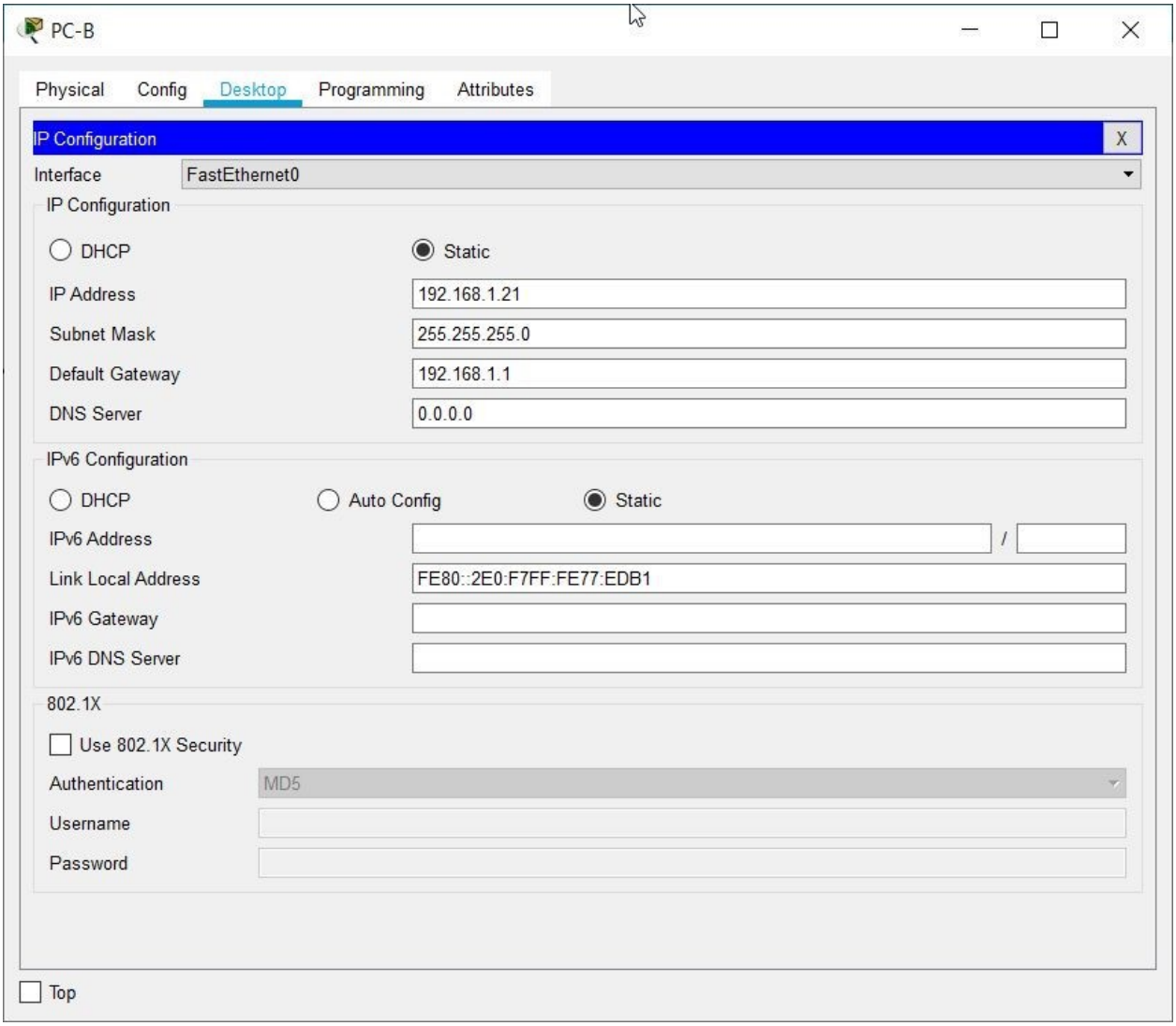
Network Topology



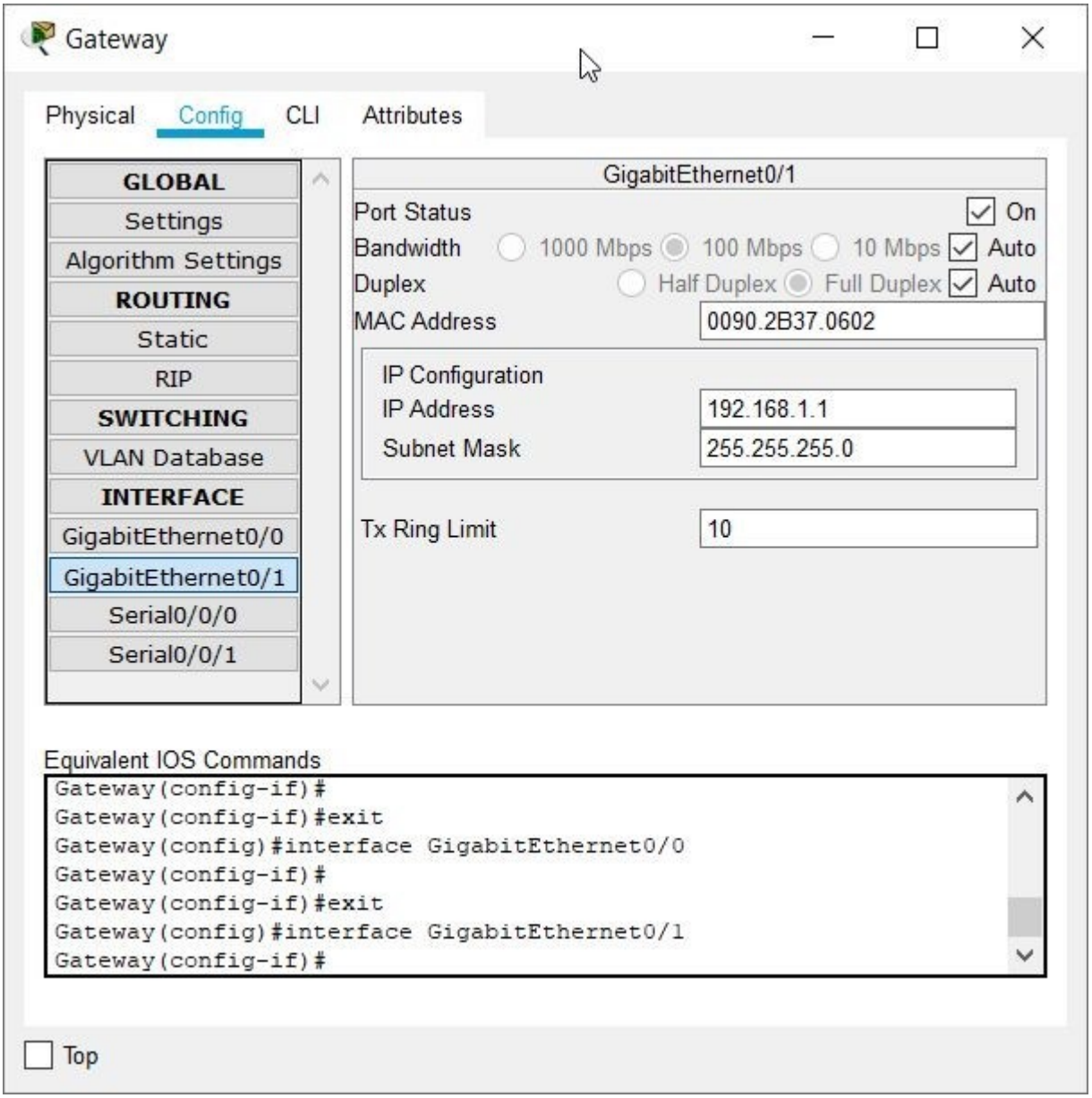
PC-A config



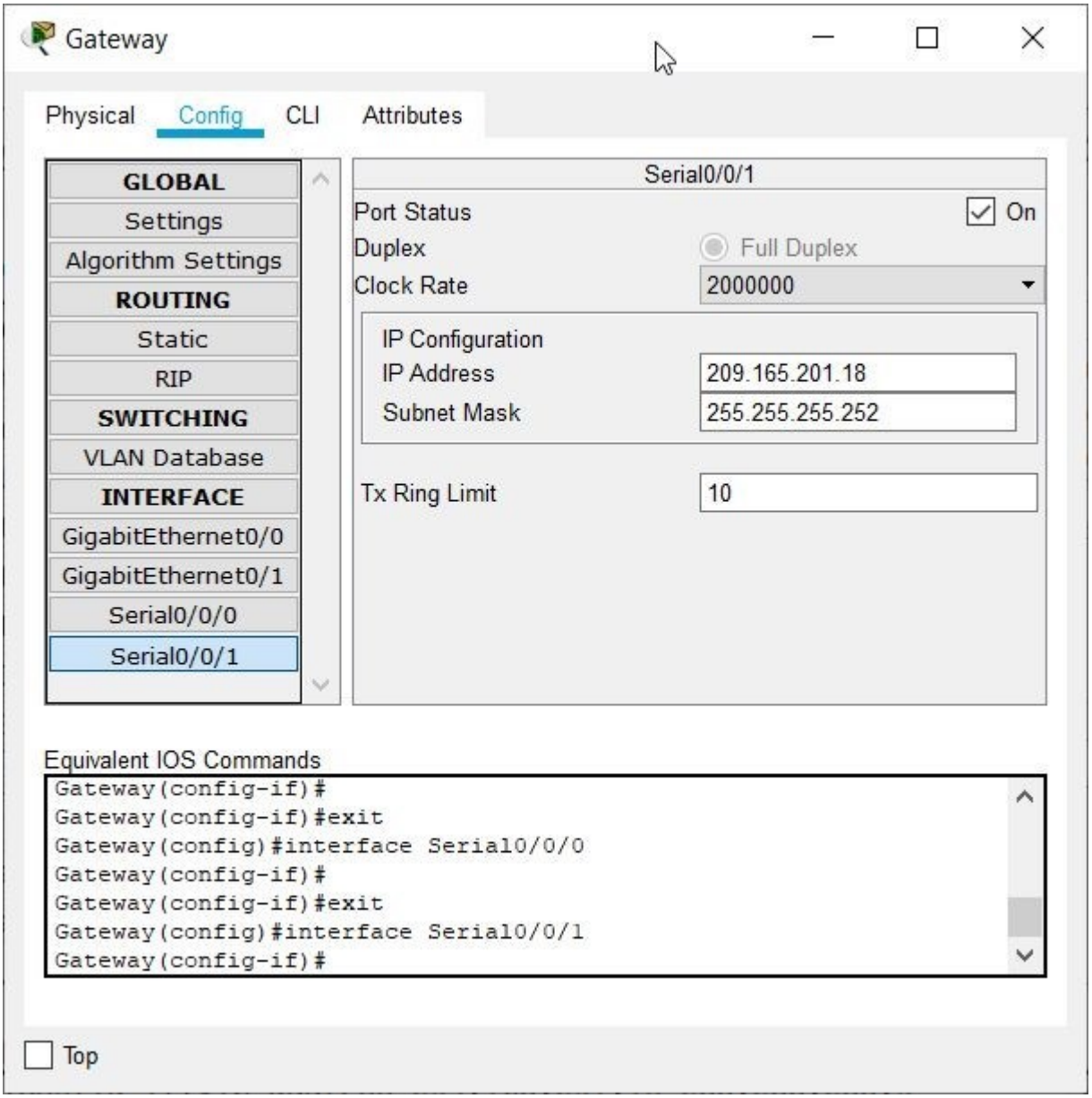
PC-B config



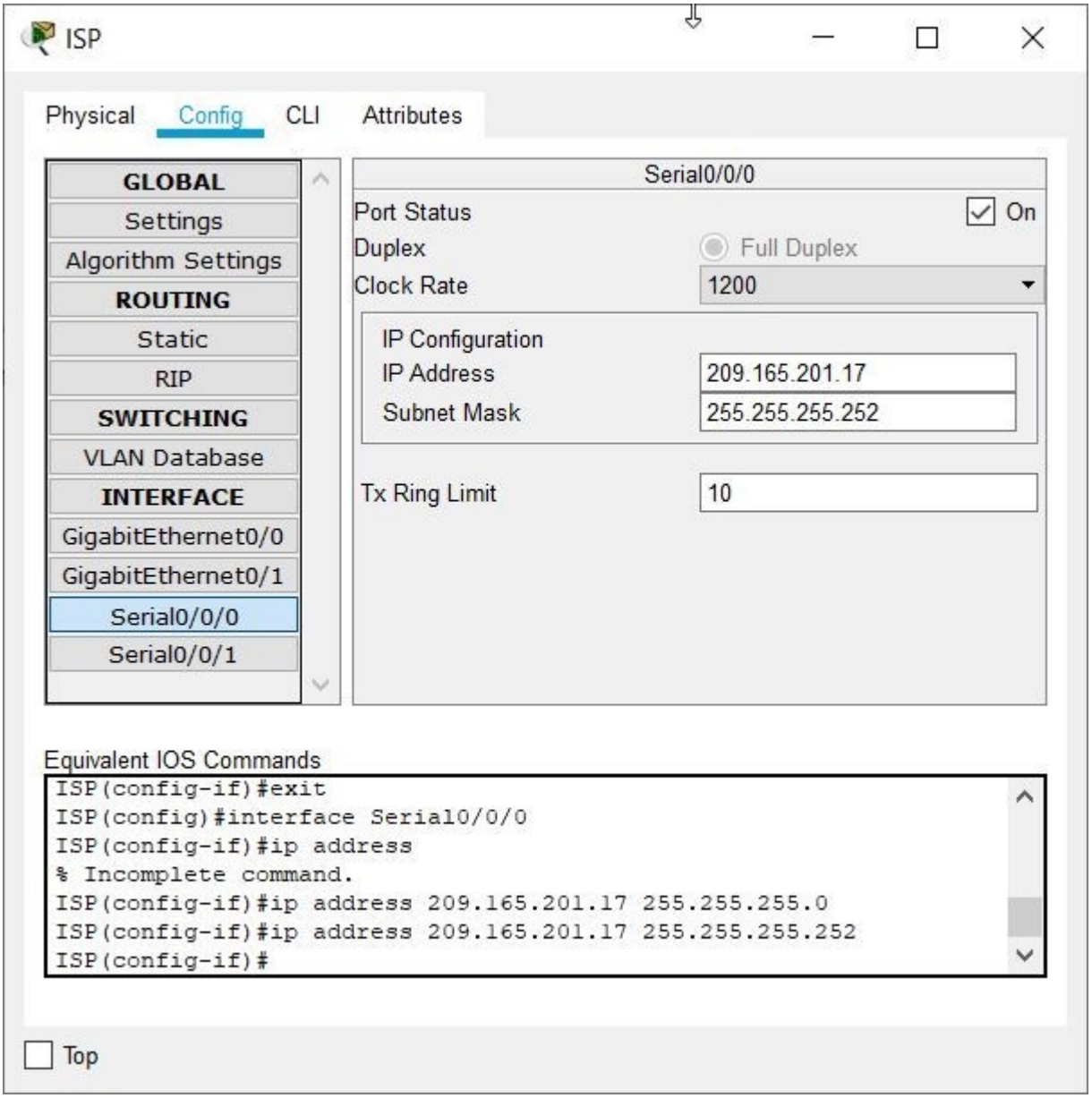
Gateway g0/0 config



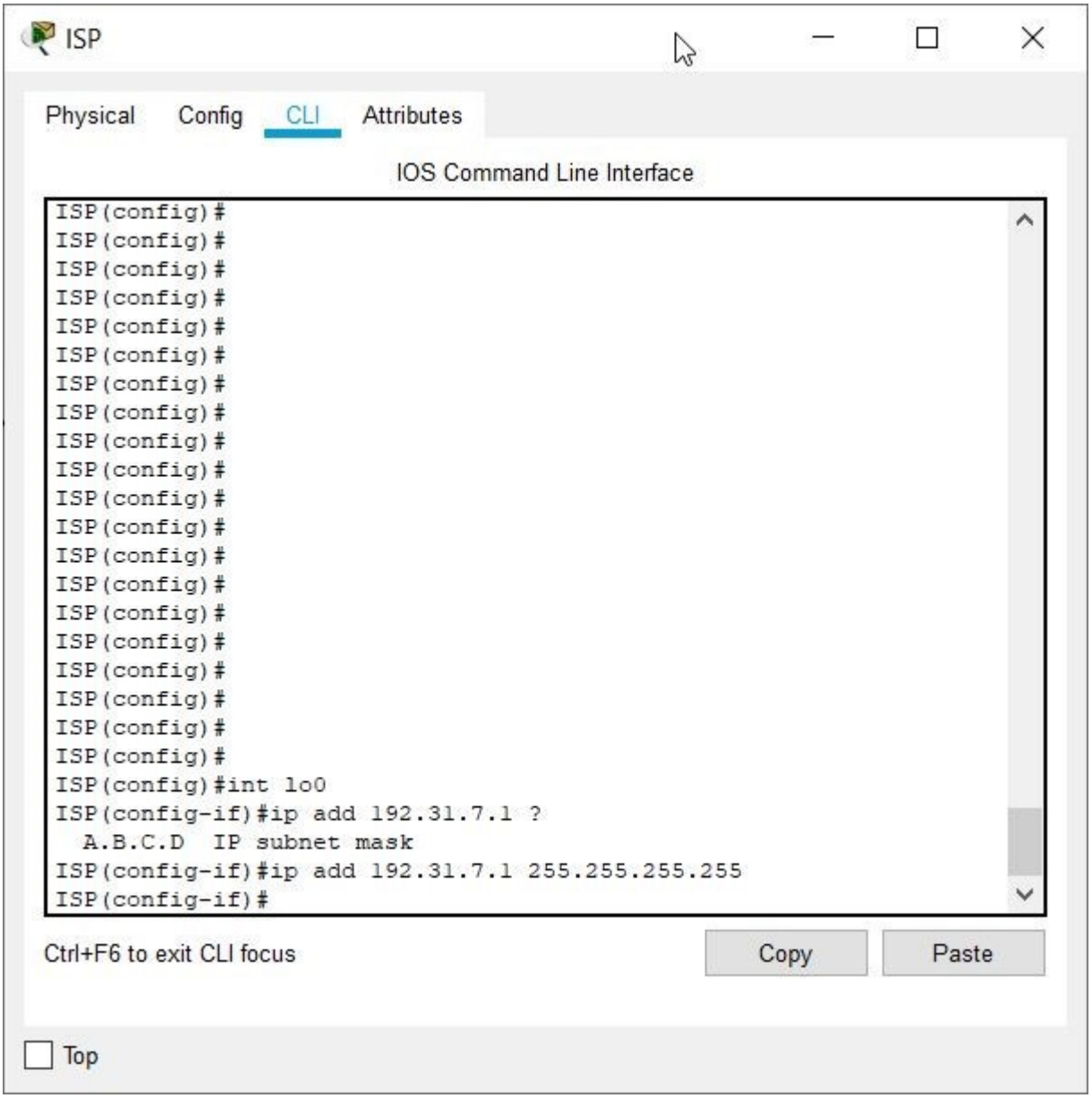
Gateway s0/0/1



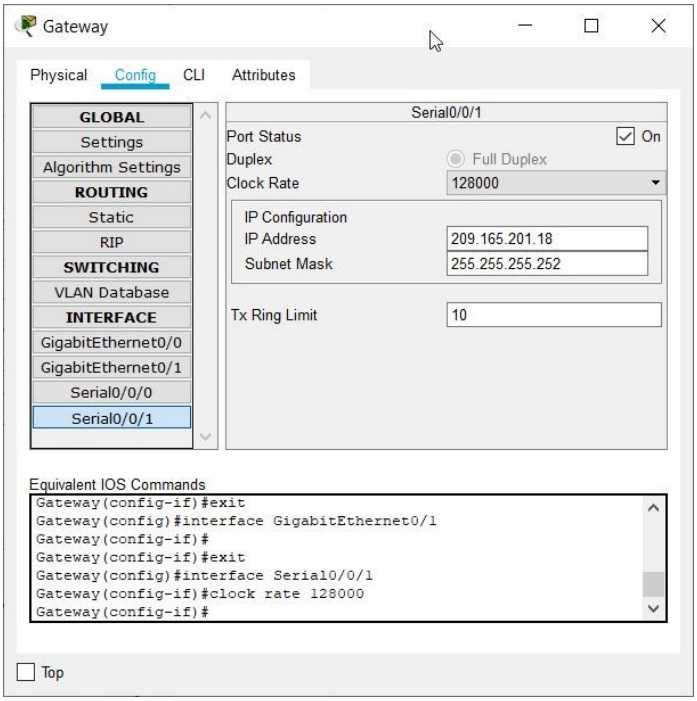
ISP serial 0/0/0 config

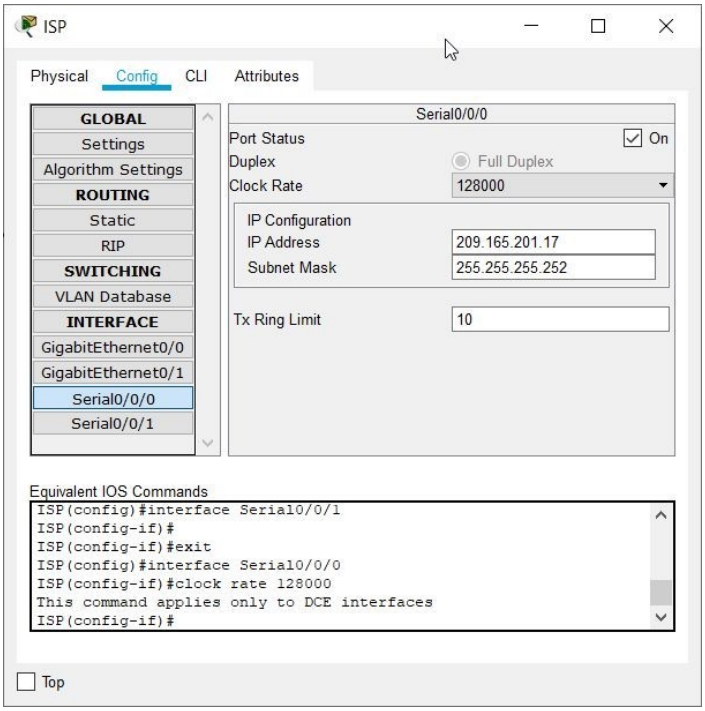


ISP lo0 config

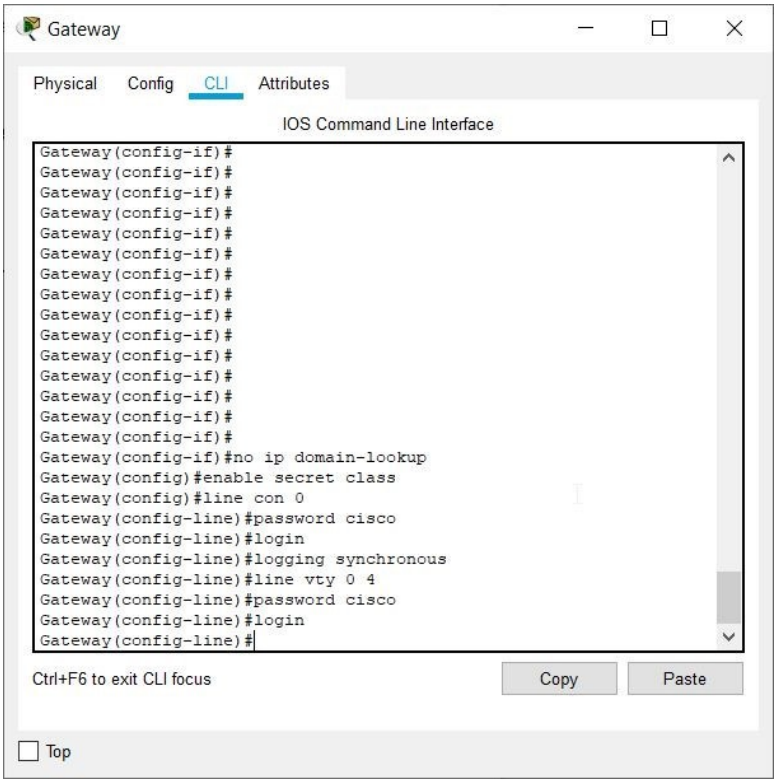


Select right click rate for Routers

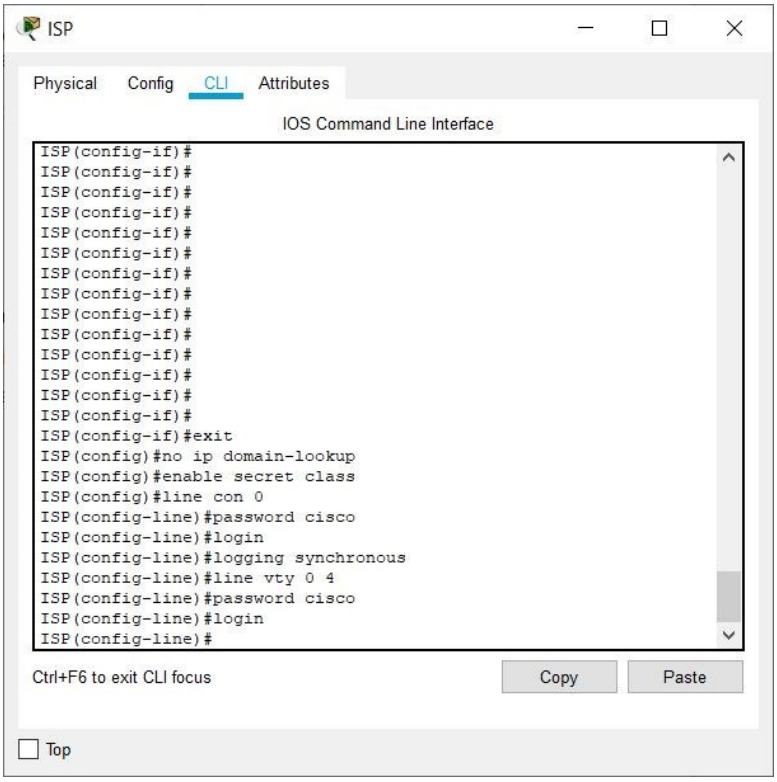




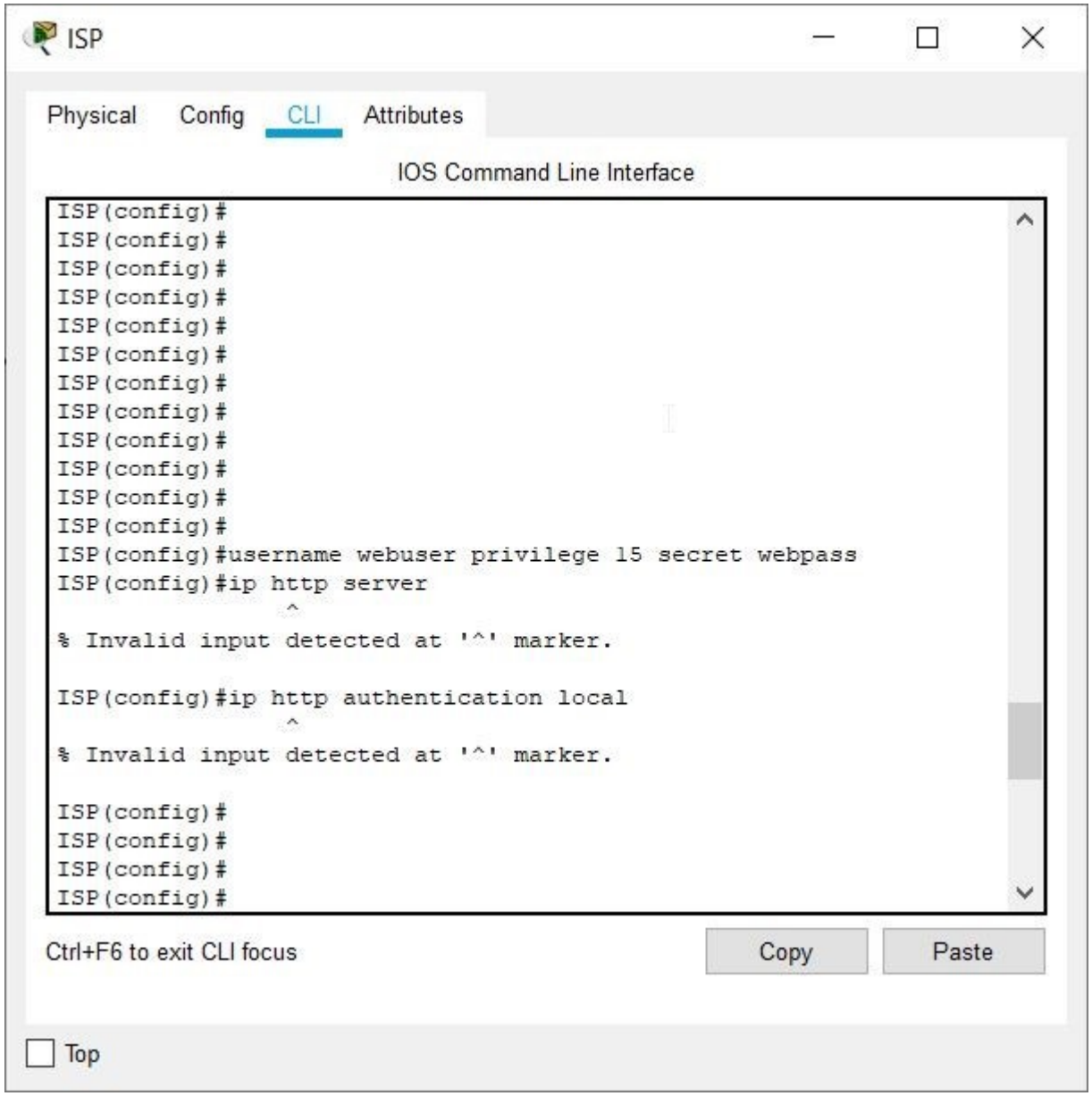
Gateway config

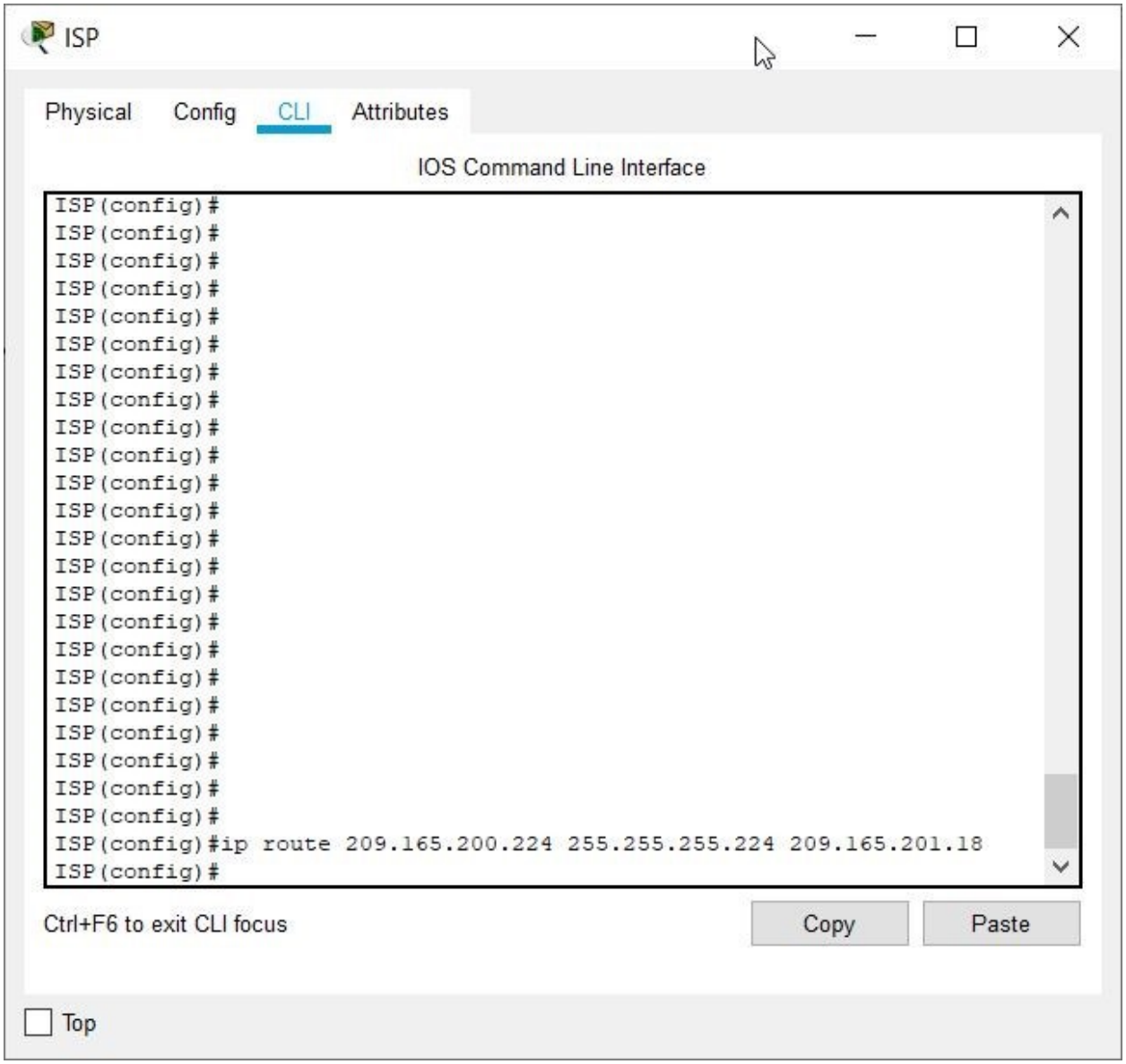


ISP config



Http error


ISP
Physical
Config
CLI
Attributes
IOS Command Line Interface
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#username webuser privilege 15 secret webpass
ISP(config)#ip http server
^
% Invalid input detected at '^' marker.
ISP(config)#ip http authentication local
^
% Invalid input detected at '^' marker.
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


ISP
Physical
Config
CLI
Attributes
IOS Command Line Interface
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
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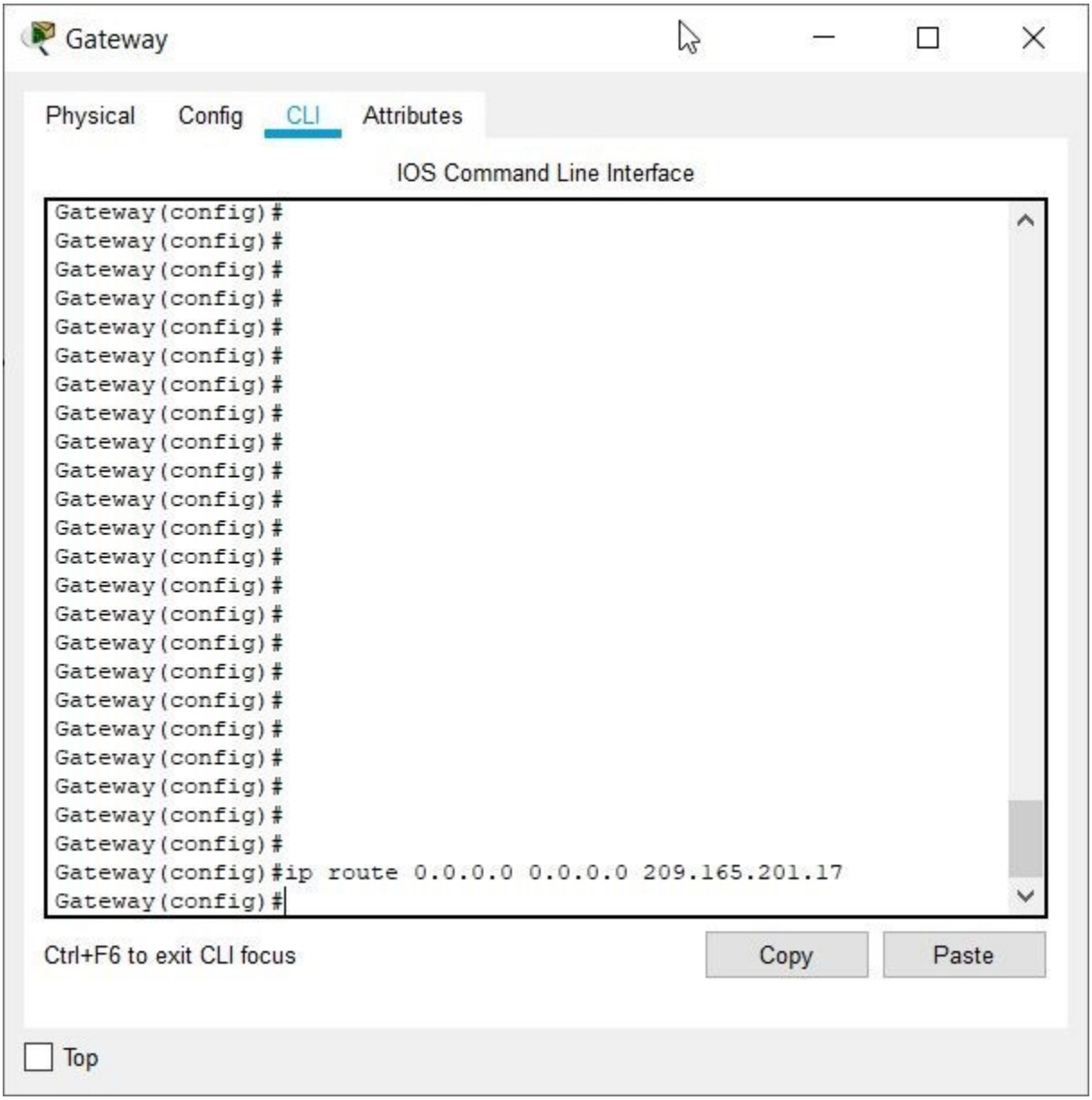
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#
ISP(config)#ip route 209.165.200.224 255.255.255.224 209.165.201.18
ISP(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
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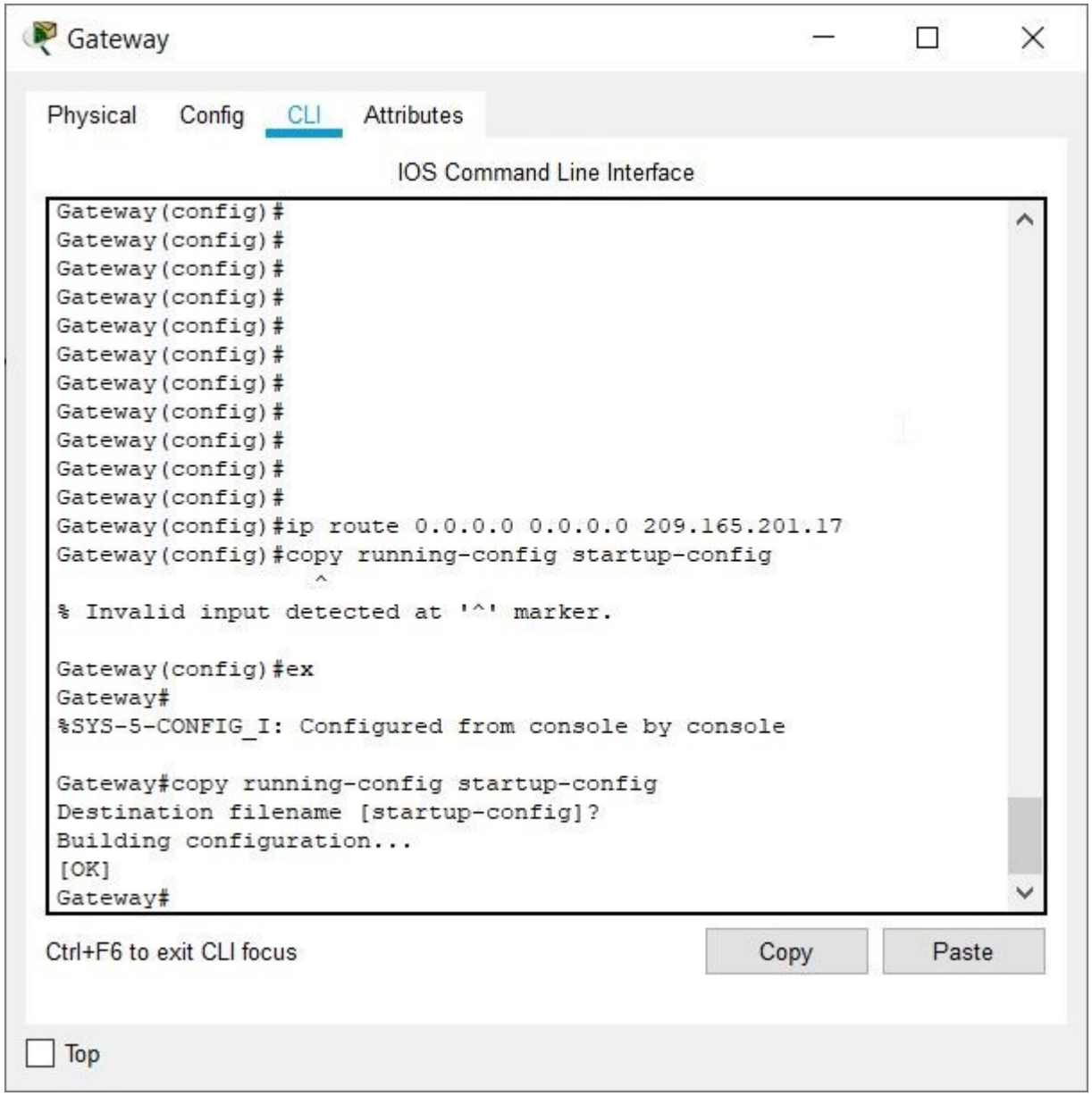
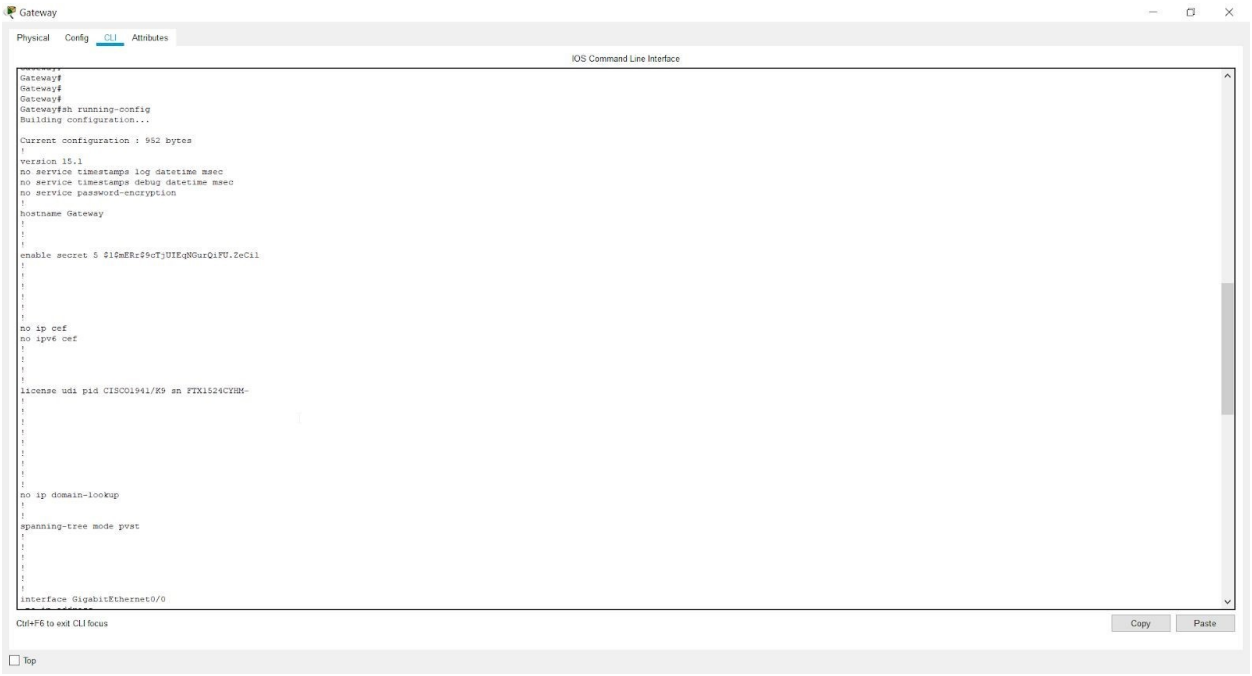
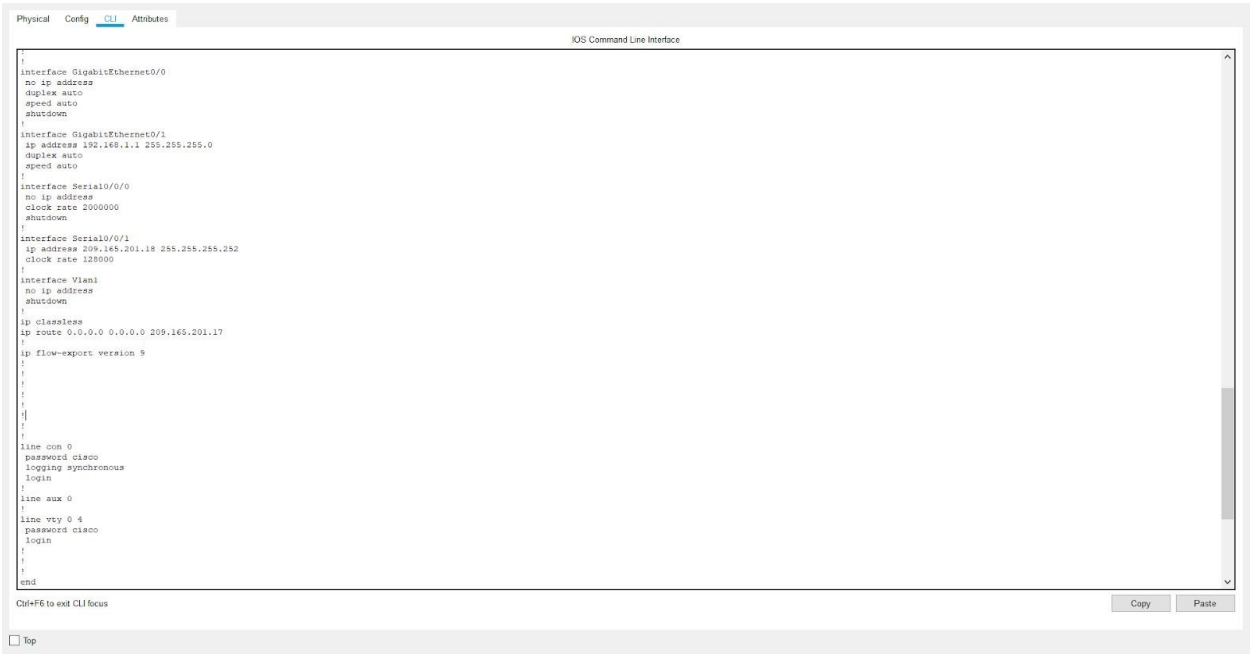
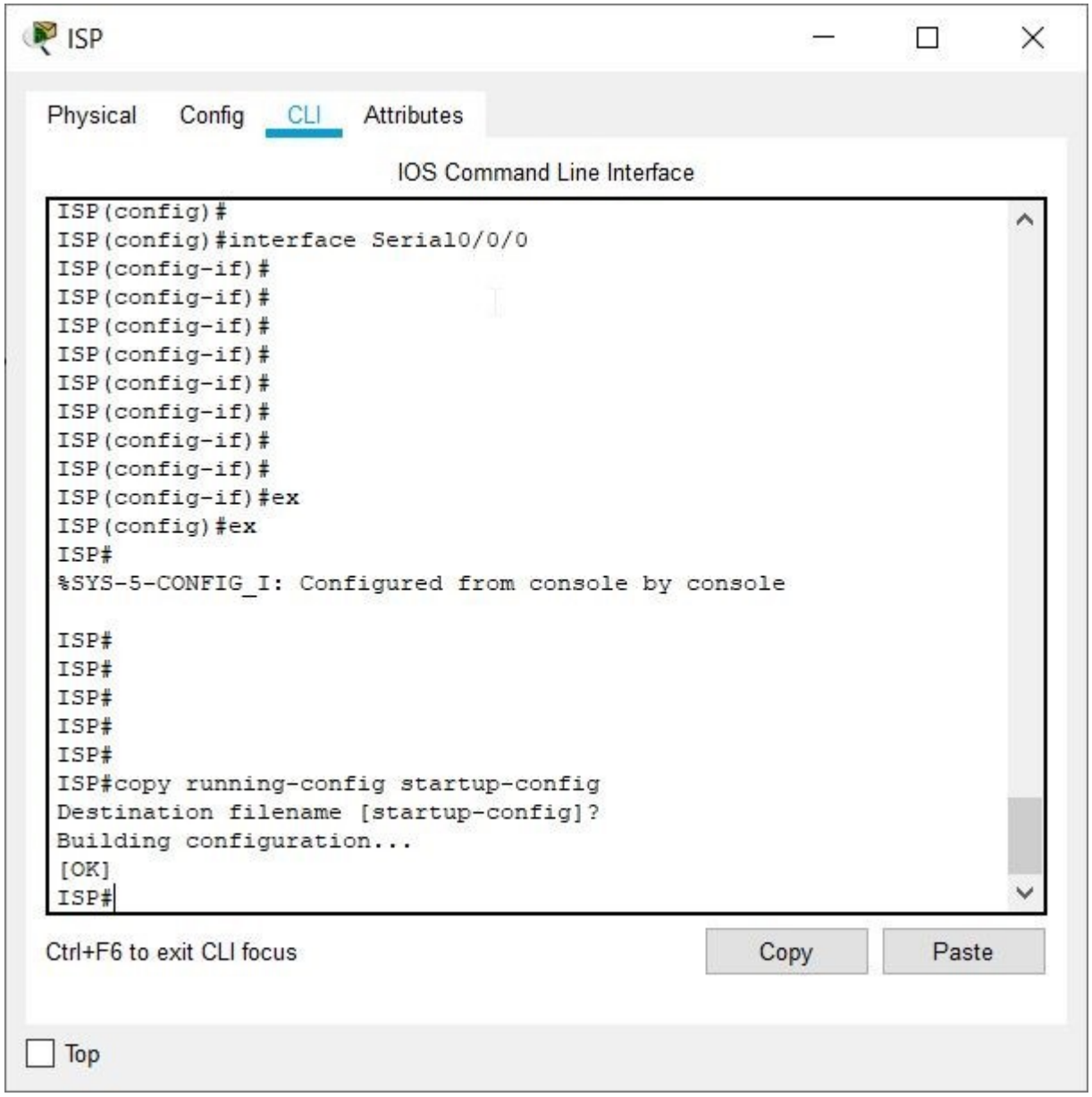
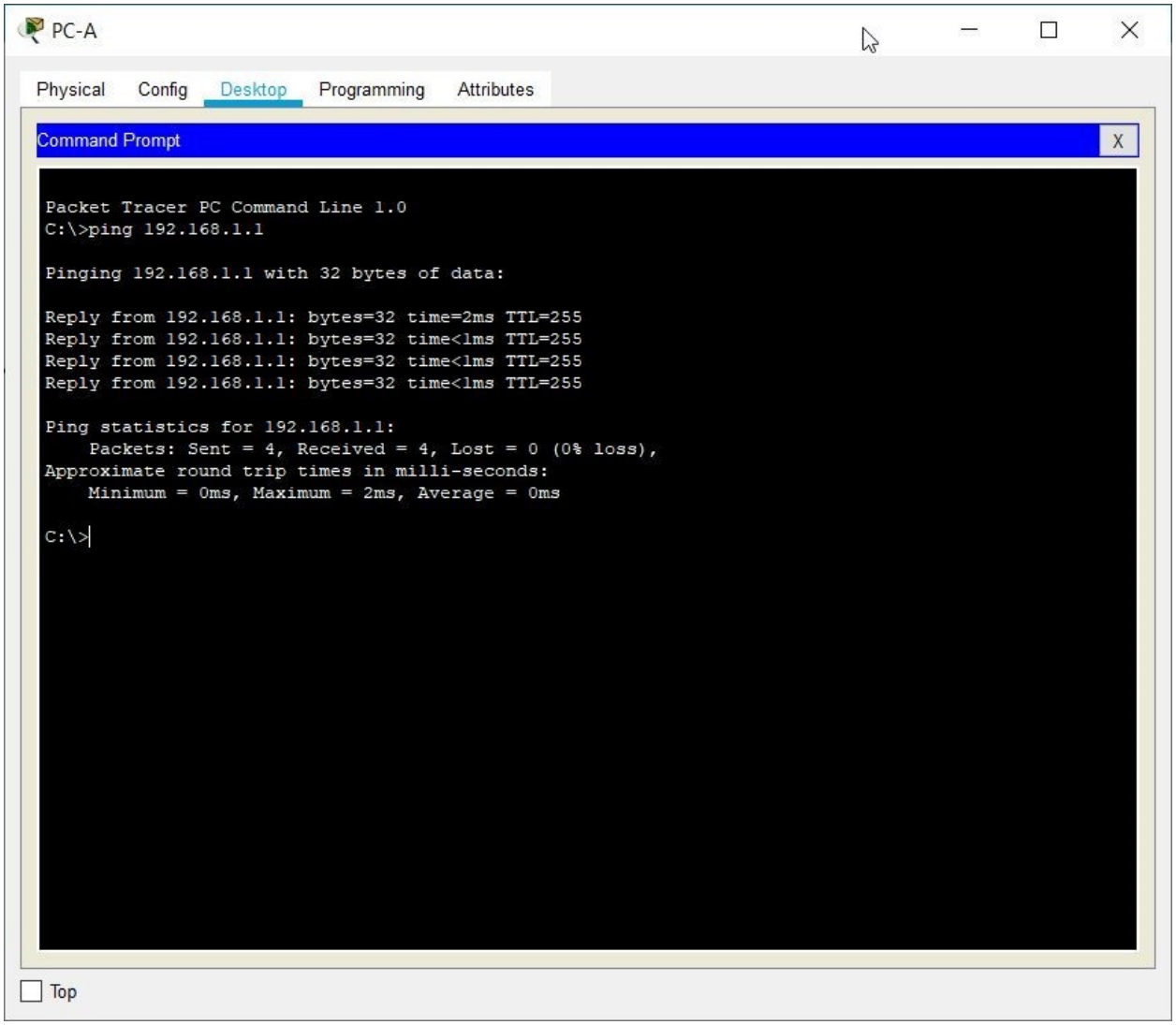
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#ip route 0.0.0.0 0.0.0.0 209.165.201.17
Gateway(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

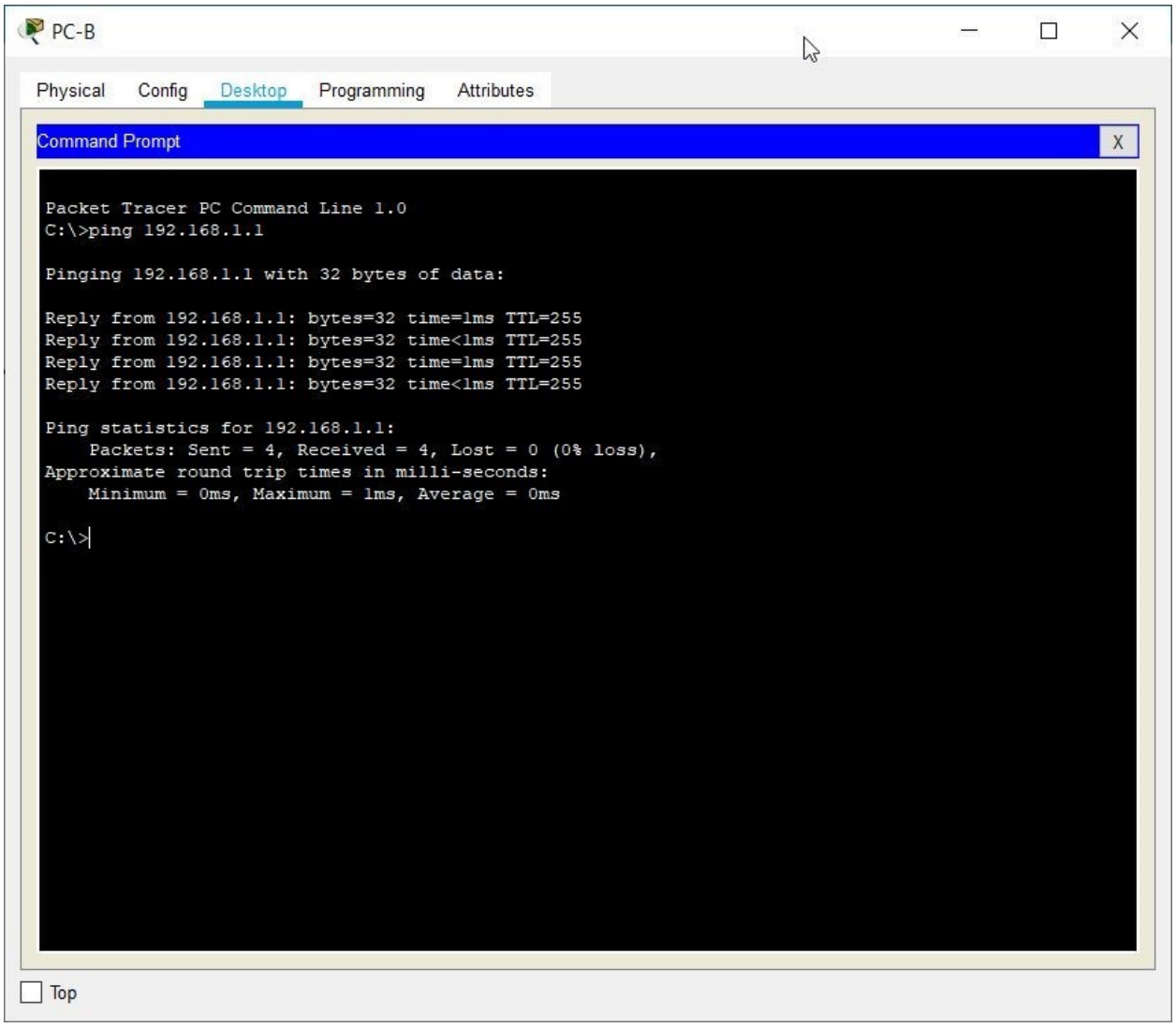

Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#ip route 0.0.0.0 0.0.0.0 209.165.201.17
Gateway(config)#copy running-config startup-config
^
% Invalid input detected at '^' marker.
Gateway(config)#ex
Gateway#
%SYS-5-CONFIG_I: Configured from console by console
Gateway#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Gateway#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway#
Gateway#
Gateway#
Gateway#sh running-config
Building configuration...
Current configuration : 952 bytes
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
hostname Gateway
enable secret 5 1mERr$9cTjUIEqNGurQiFU.ZeCi1
no ip cef
no ipv6 cef
license udi pid CISCO1941/K9 sn FTX1524CYHM-
no ip domain-lookup
spanning-tree mode pvst
interface GigabitEthernet0/0
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Physical
Config
CLI
Attributes
IOS Command Line Interface
interface GigabitEthernet0/0
no ip address
duplex auto
speed auto
shutdown
interface GigabitEthernet0/1
ip address 192.168.1.1 255.255.255.0
duplex auto
speed auto
interface Serial0/0/0
no ip address
clock rate 2000000
shutdown
interface Serial0/0/1
ip address 209.165.201.18 255.255.255.252
clock rate 128000
interface Vlan1
no ip address
shutdown
ip classless
ip route 0.0.0.0 0.0.0.0 209.165.201.17
ip flow-export version 9
line con 0
password cisco
logging synchronous
login
line aux 0
line vty 0 4
password cisco
login
end
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


ISP
Physical
Config
CLI
Attributes
IOS Command Line Interface
ISP(config)#
ISP(config)#interface Serial0/0/0
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#
ISP(config-if)#ex
ISP(config)#ex
ISP#
%SYS-5-CONFIG_I: Configured from console by console
ISP#
ISP#
ISP#
ISP#
ISP#
ISP#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
ISP#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


PC-A
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 2ms, Average = 0ms
C:\>
Top



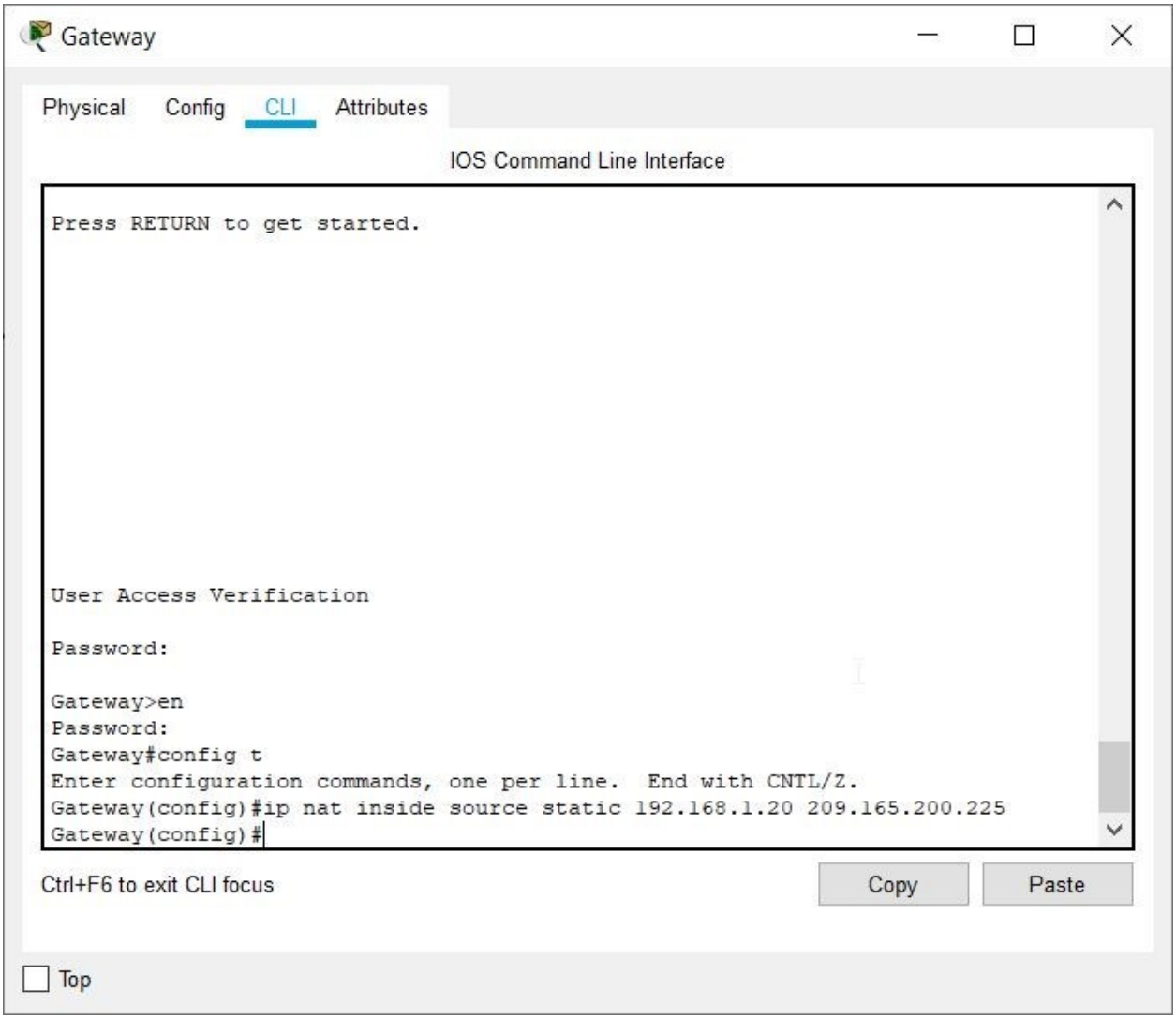
Routing Table for Gateway

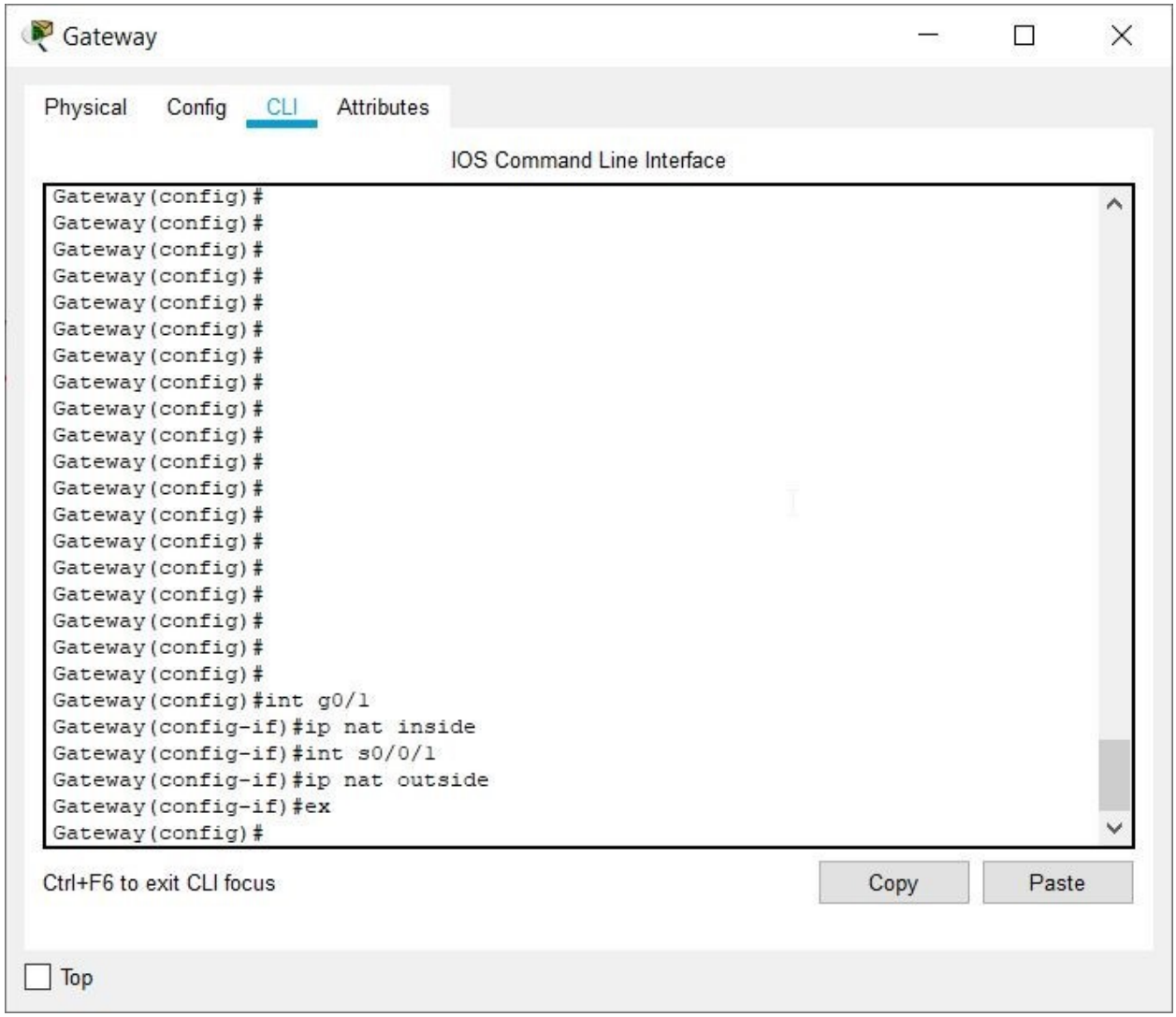
Type	Network	Port	Next Hop IP	Metric
S	0.0.0.0/0	---	209.165.201.17	1/0
C	192.168.1.0/24	GigabitEthernet0/1	---	0/0
L	192.168.1.1/32	GigabitEthernet0/1	---	0/0
C	209.165.201.16/30	Serial0/0/1	---	0/0
L	209.165.201.18/32	Serial0/0/1	---	0/0

Routing Table for ISP

Type	Network	Port	Next Hop IP	Metric
C	192.31.7.1/32	Loopback0	---	0/0
S	209.165.200.224/27	---	209.165.201.18	1/0
C	209.165.201.16/30	Serial0/0/0	---	0/0
L	209.165.201.17/32	Serial0/0/0	---	0/0

TASK 2:


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Press RETURN to get started.
User Access Verification
Password:
Gateway>en
Password:
Gateway#config t
Enter configuration commands, one per line. End with CNTL/Z.
Gateway(config)#ip nat inside source static 192.168.1.20 209.165.200.225
Gateway(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
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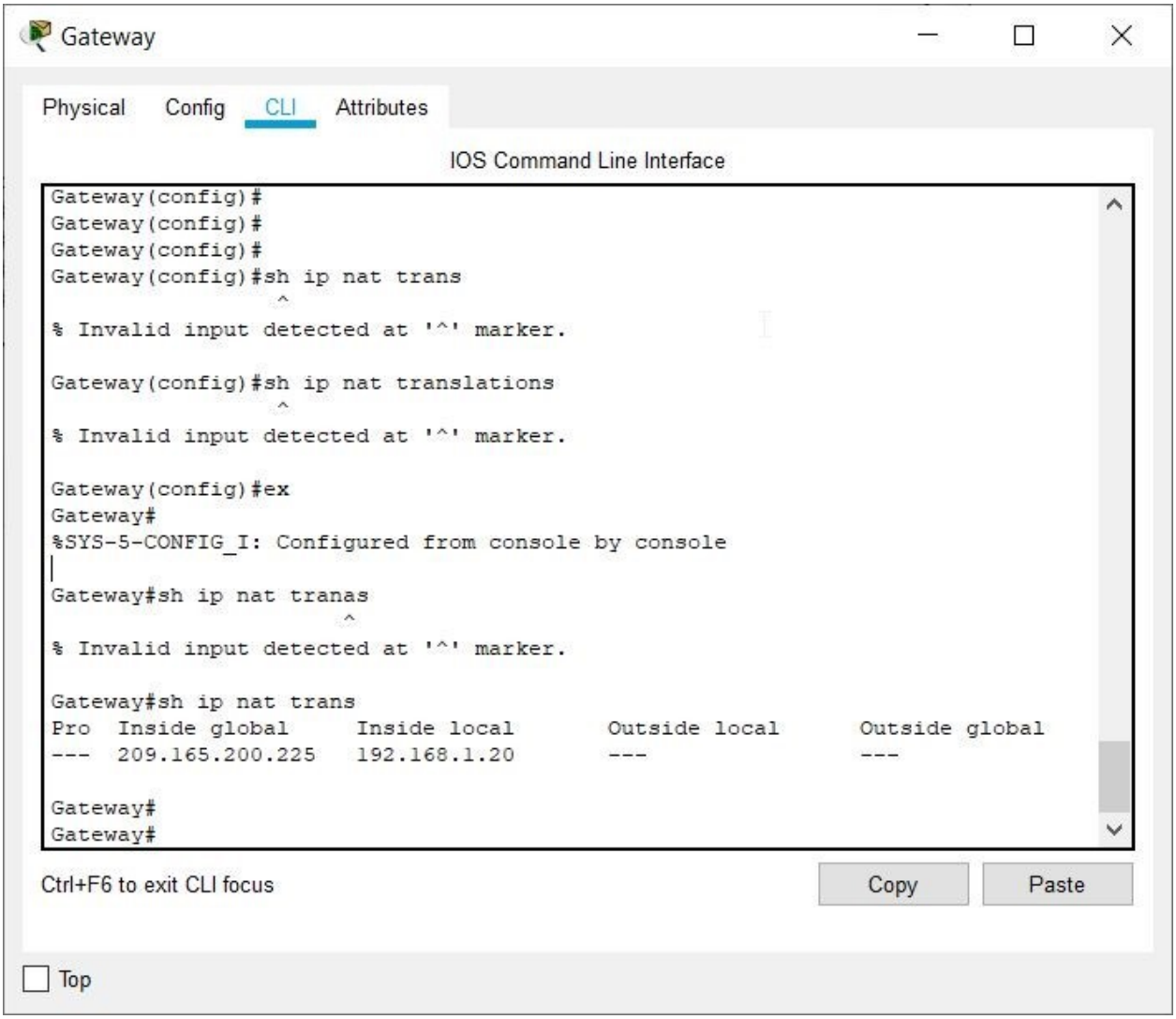
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#
Gateway(config)#int g0/1
Gateway(config-if)#ip nat inside
Gateway(config-if)#int s0/0/1
Gateway(config-if)#ip nat outside
Gateway(config-if)#ex
Gateway(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top



Q.What is the translation of the Inside local host address?

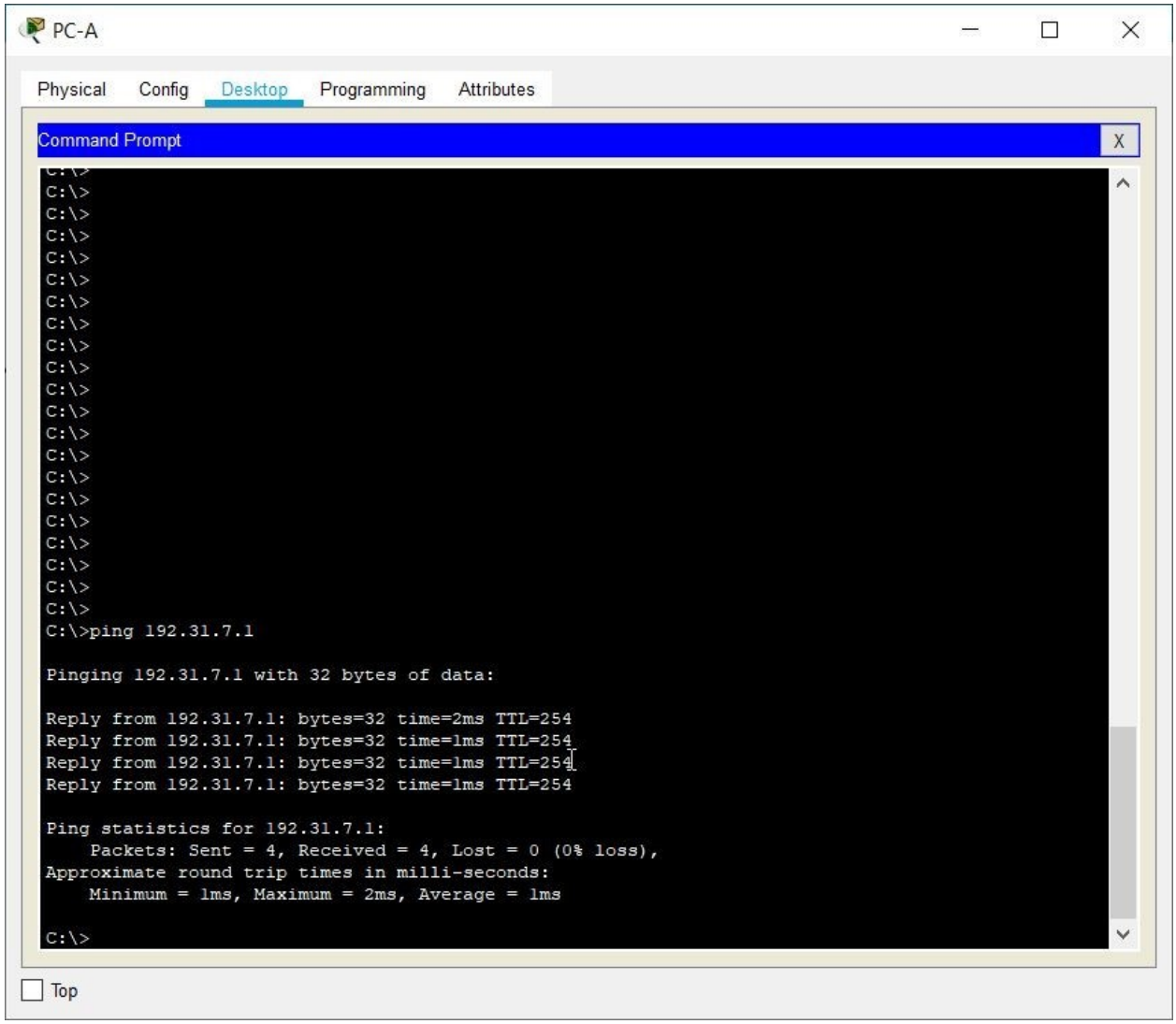
192.168.1.20 = 209.165.200.225

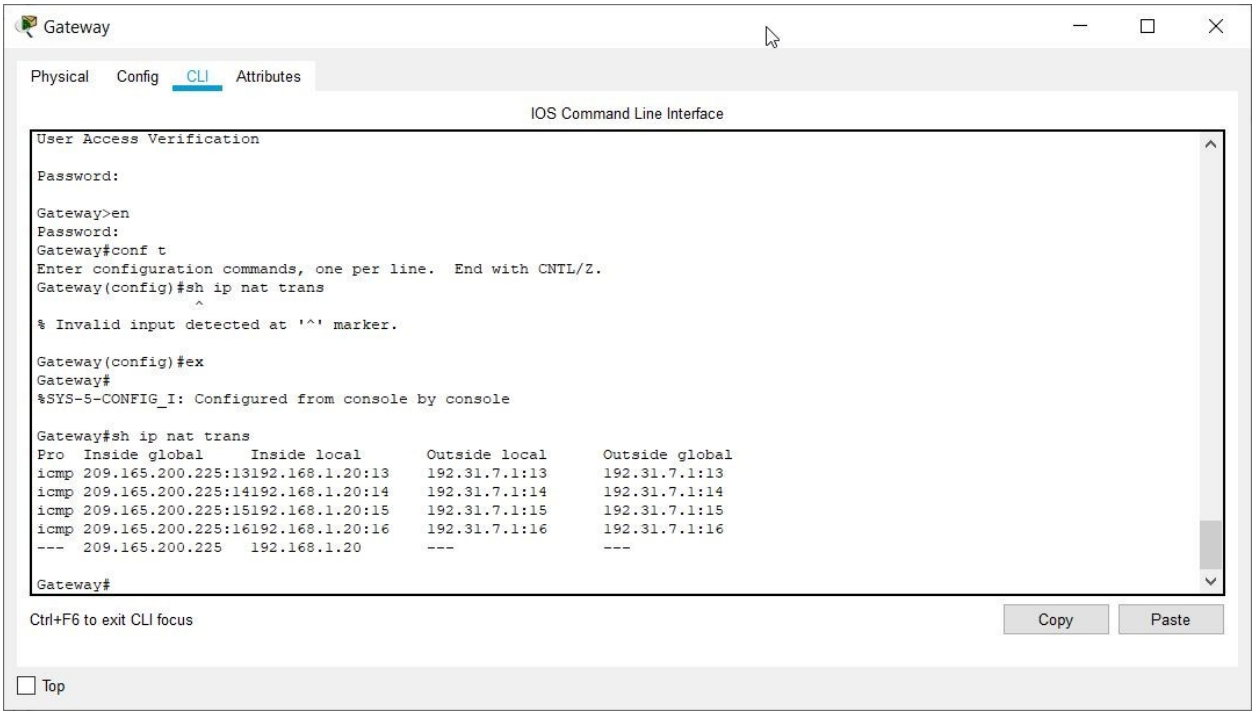
Q.The Inside global address is assigned by?

ISP(static) and NAT pool(dynamic)

Q.The Inside local address is assigned by? System Administrator

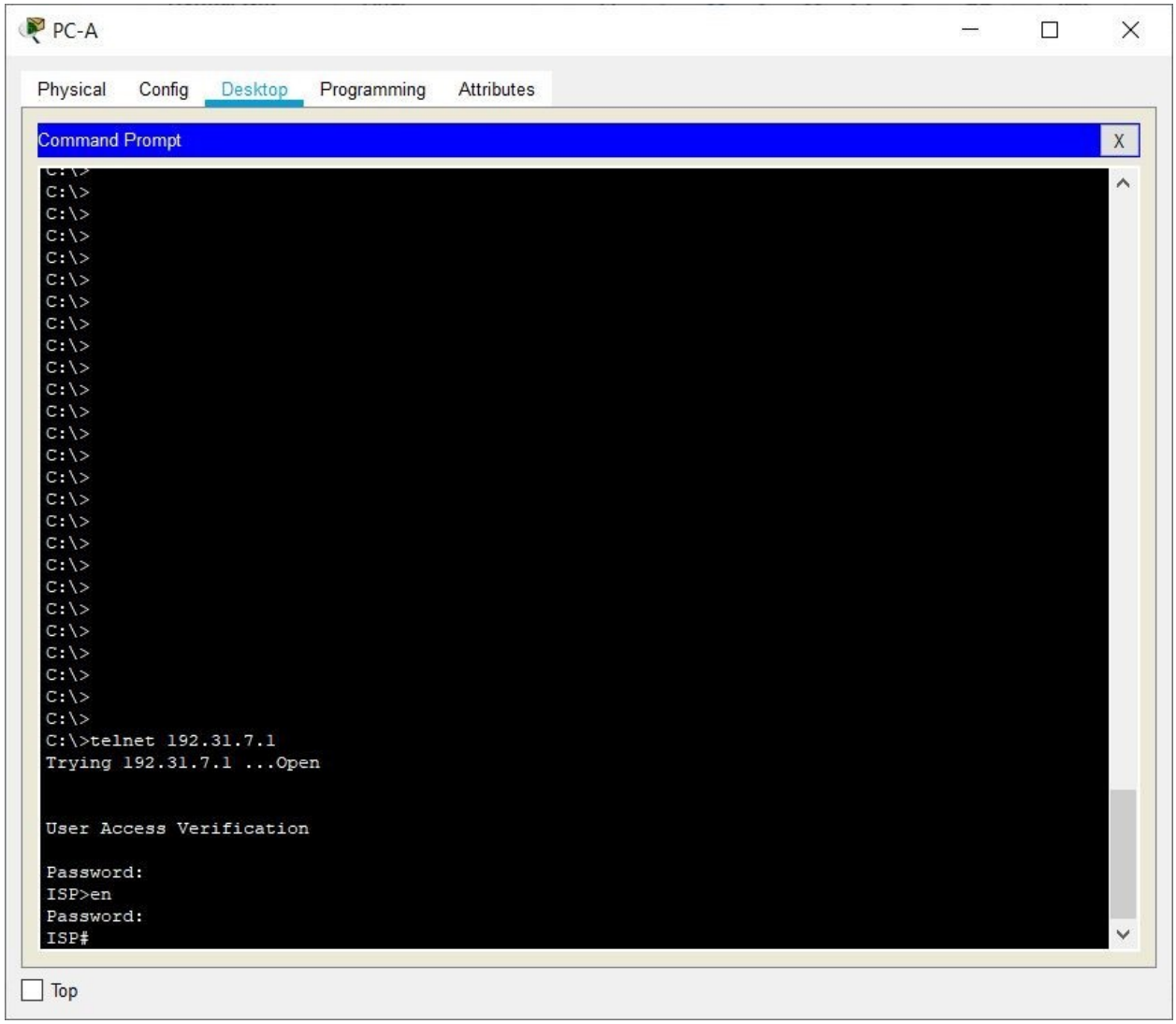
Pinging Lo0 interface

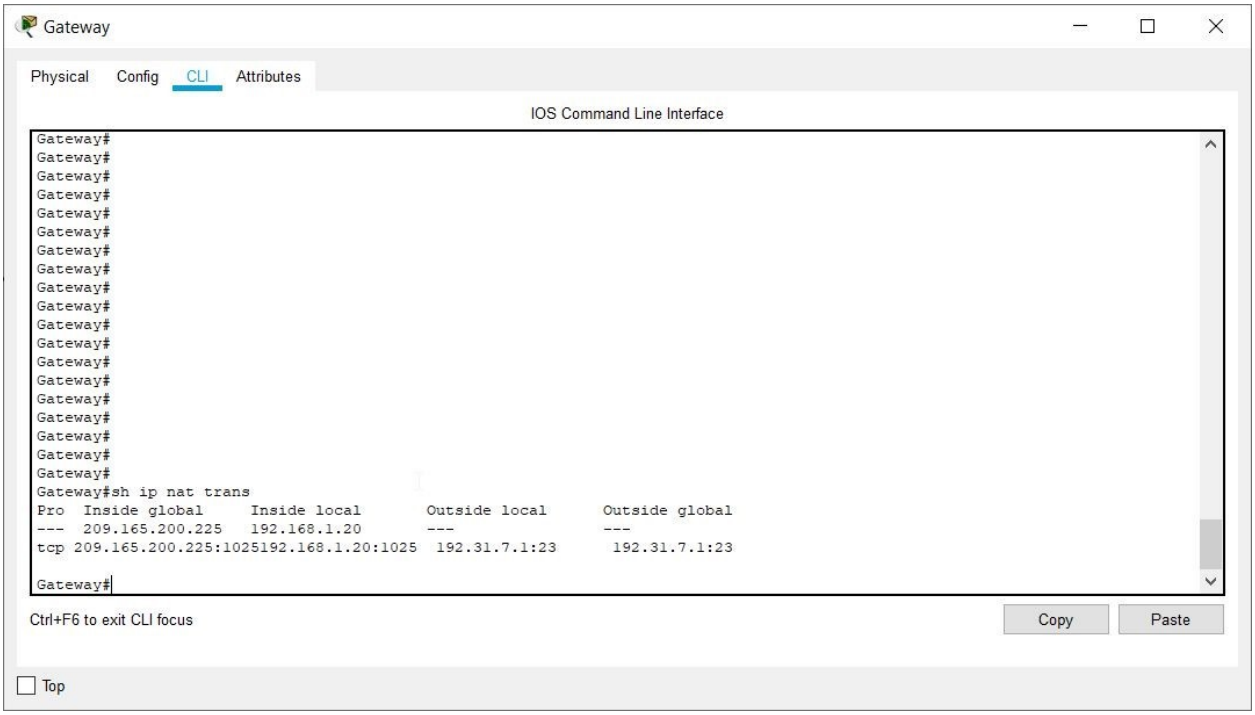




What port number was used in this ICMP exchange?

4 port nos. were used for 4 ICMP exchanges for 4 pings. They are 13, 14, 15, 16.

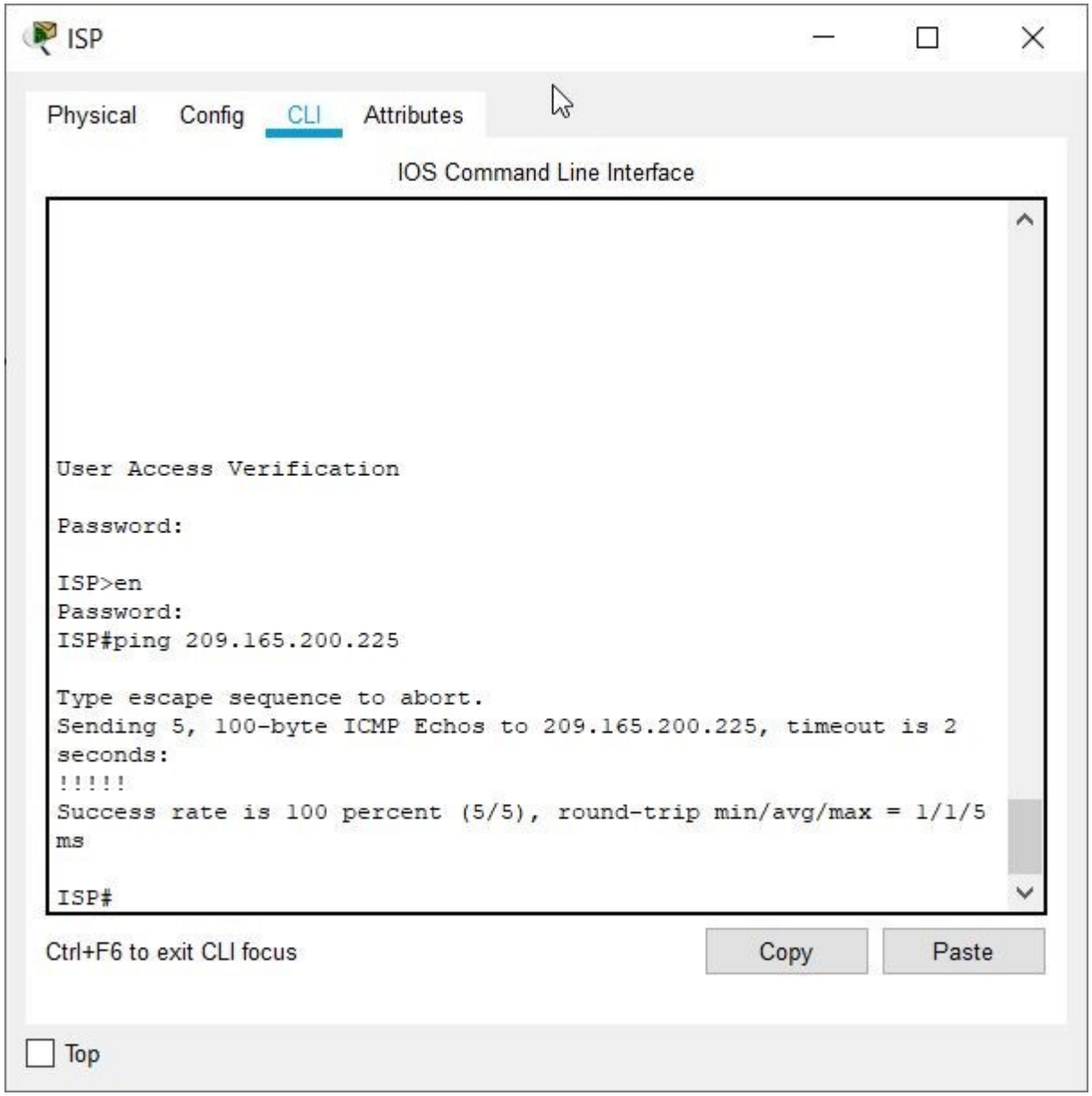

PC-A
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
C:\>
C:\>telnet 192.31.7.1
Trying 192.31.7.1 ...Open
User Access Verification
Password:
ISP>en
Password:
ISP#
Top

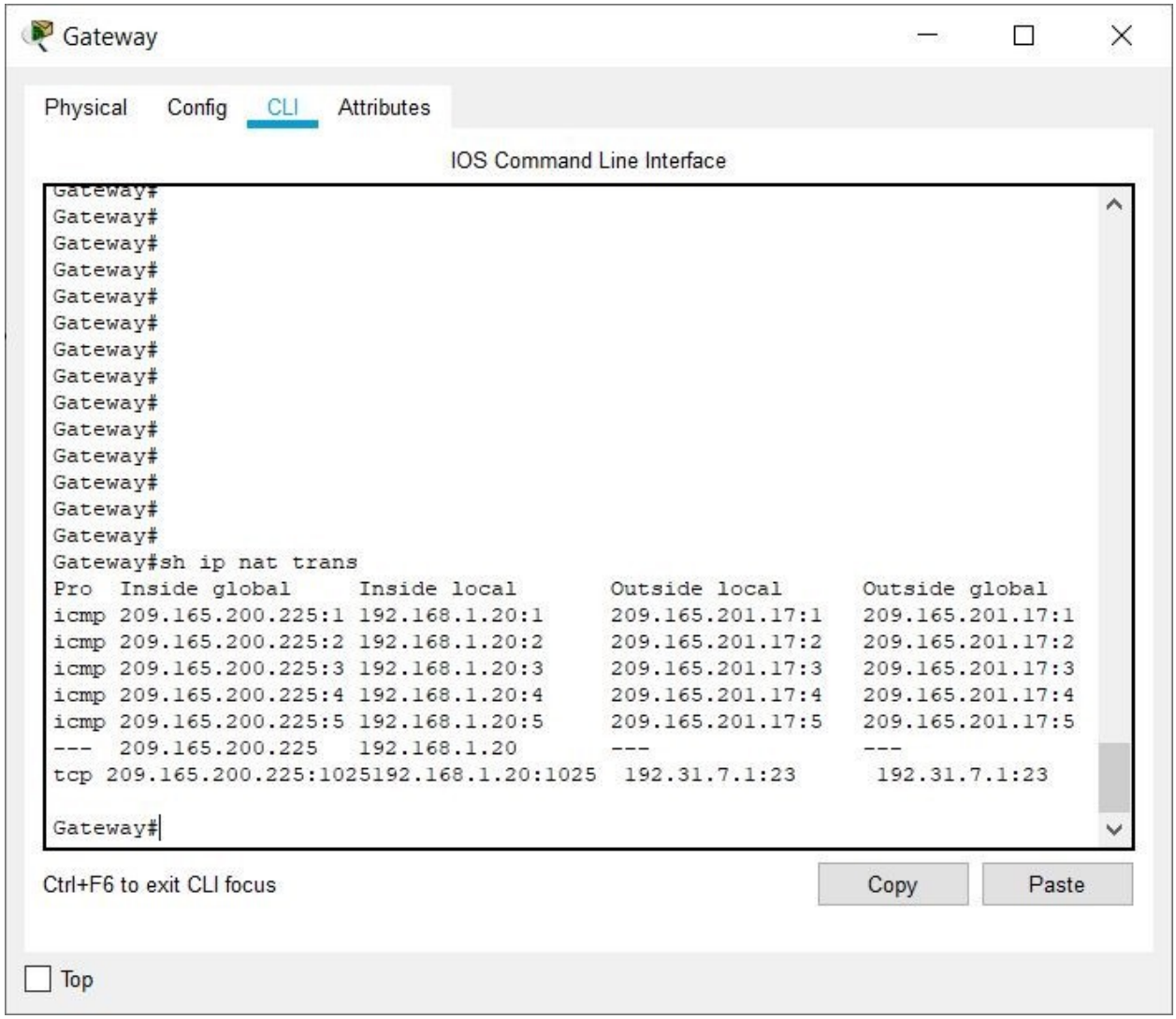


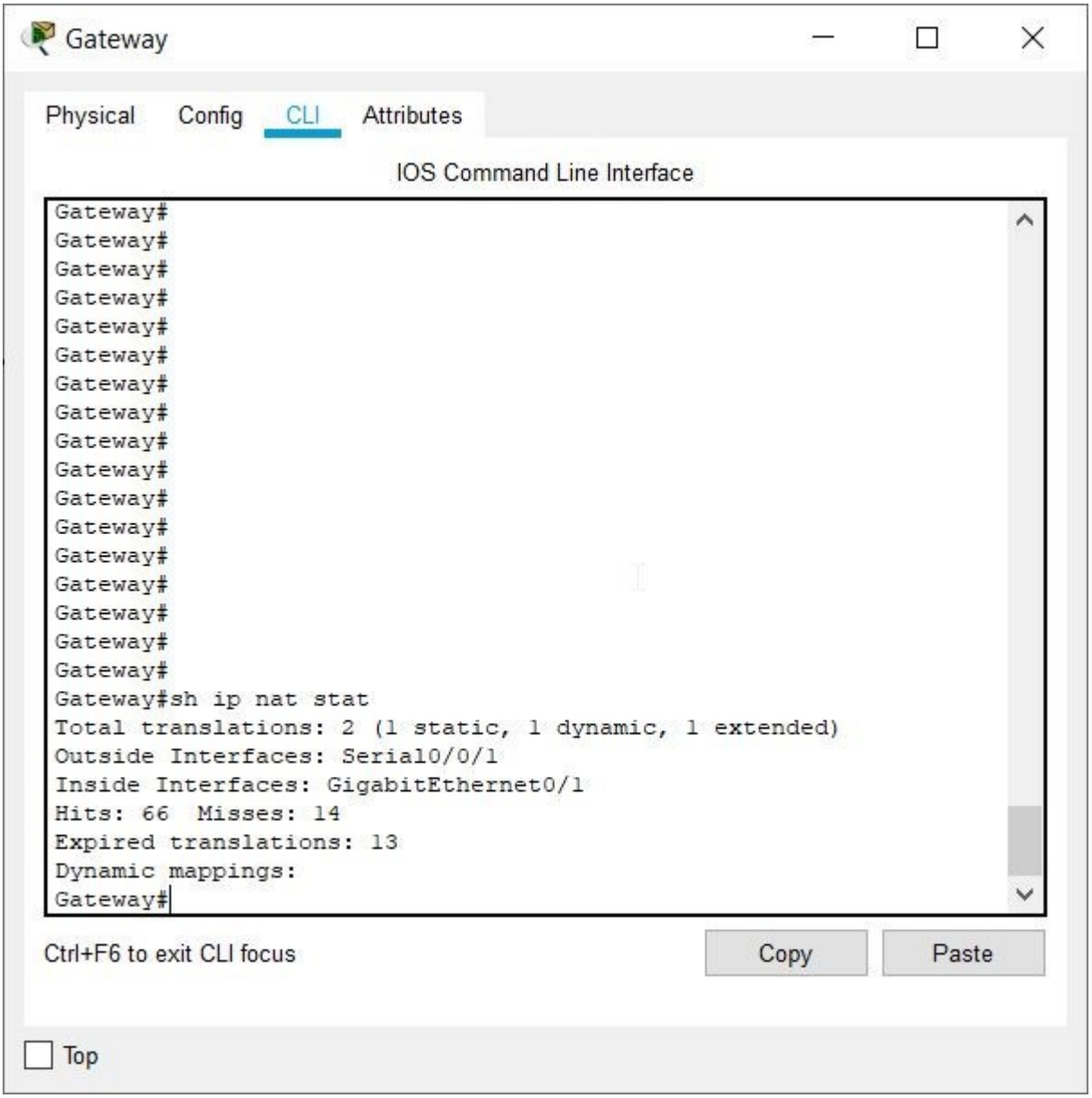
What was the protocol used in this translation? TCP **What are the port numbers used?**

Inside global / local: 1025

Outside global / local: 23

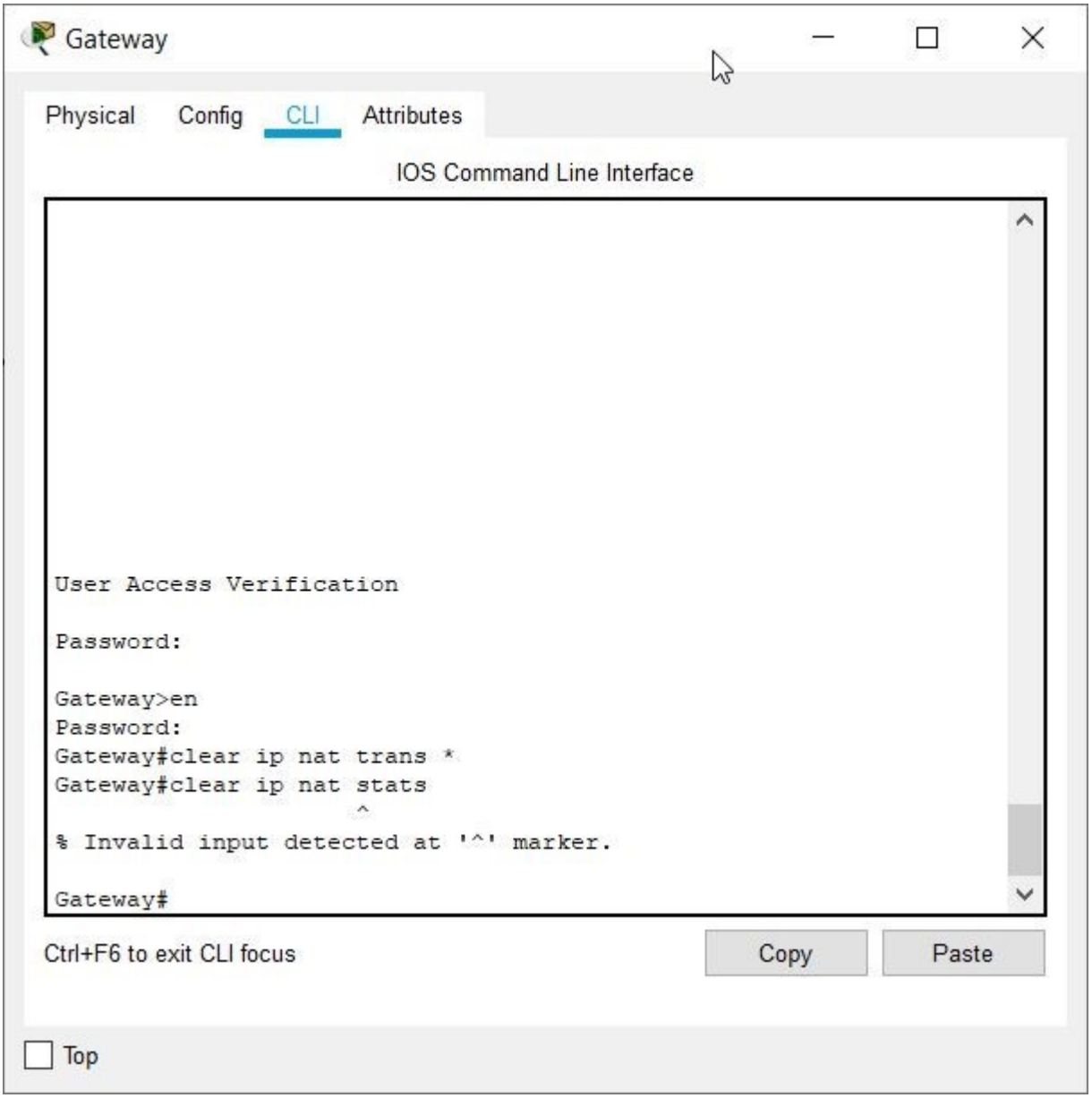

ISP
Physical
Config
CLI
Attributes
IOS Command Line Interface
User Access Verification
Password:
ISP>en
Password:
ISP#ping 209.165.200.225
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 209.165.200.225, timeout is 2
seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/5
ms
ISP#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#
Gateway#sh ip nat trans
Pro Inside global Inside local Outside local Outside global
icmp 209.165.200.225:1 192.168.1.20:1 209.165.201.17:1 209.165.201.17:1
icmp 209.165.200.225:2 192.168.1.20:2 209.165.201.17:2 209.165.201.17:2
icmp 209.165.200.225:3 192.168.1.20:3 209.165.201.17:3 209.165.201.17:3
icmp 209.165.200.225:4 192.168.1.20:4 209.165.201.17:4 209.165.201.17:4
icmp 209.165.200.225:5 192.168.1.20:5 209.165.201.17:5 209.165.201.17:5
--- 209.165.200.225 192.168.1.20 --- ---
tcp 209.165.200.225:1025192.168.1.20:1025 192.31.7.1:23 192.31.7.1:23
Gateway#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

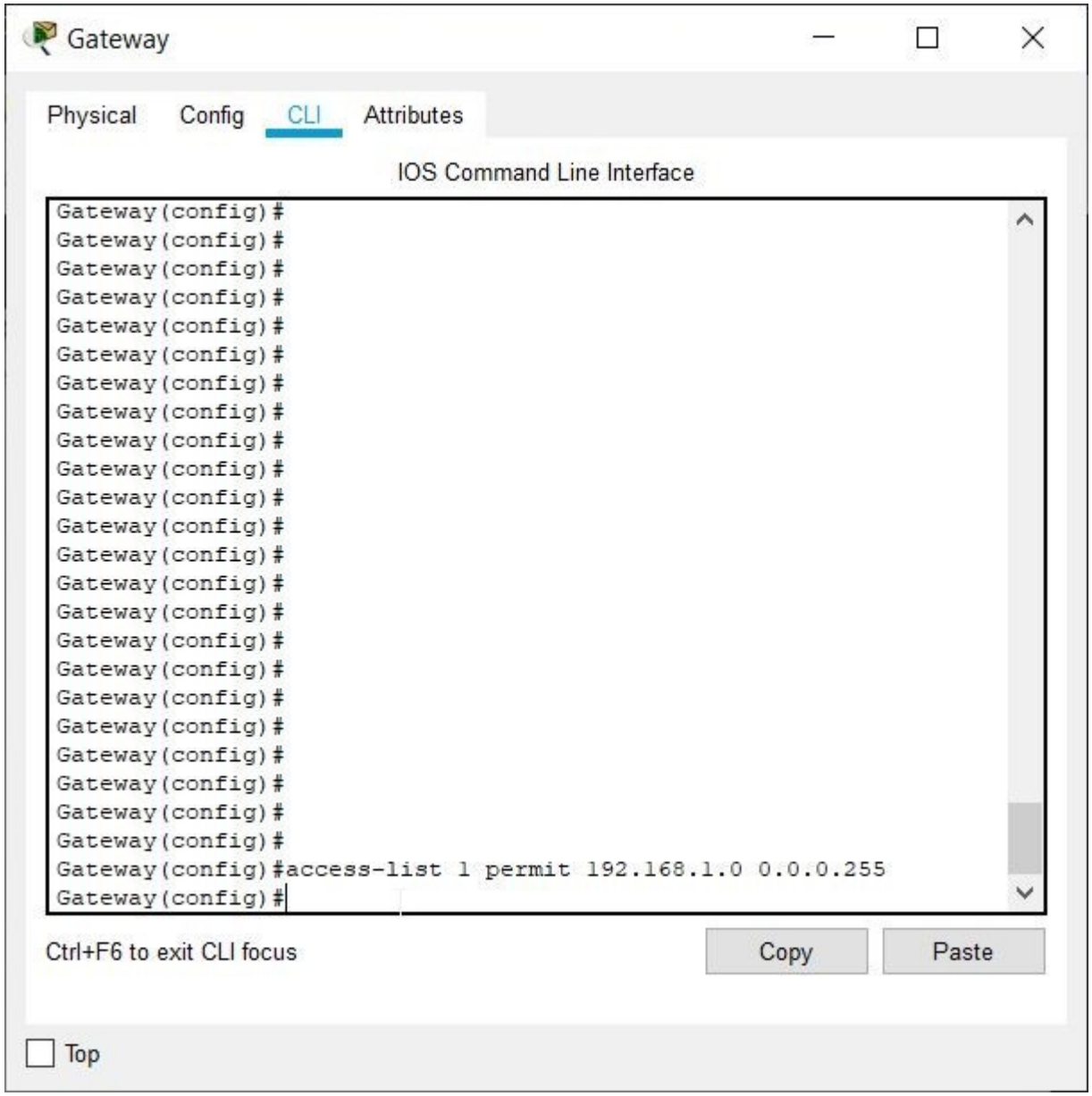


TASK 3:

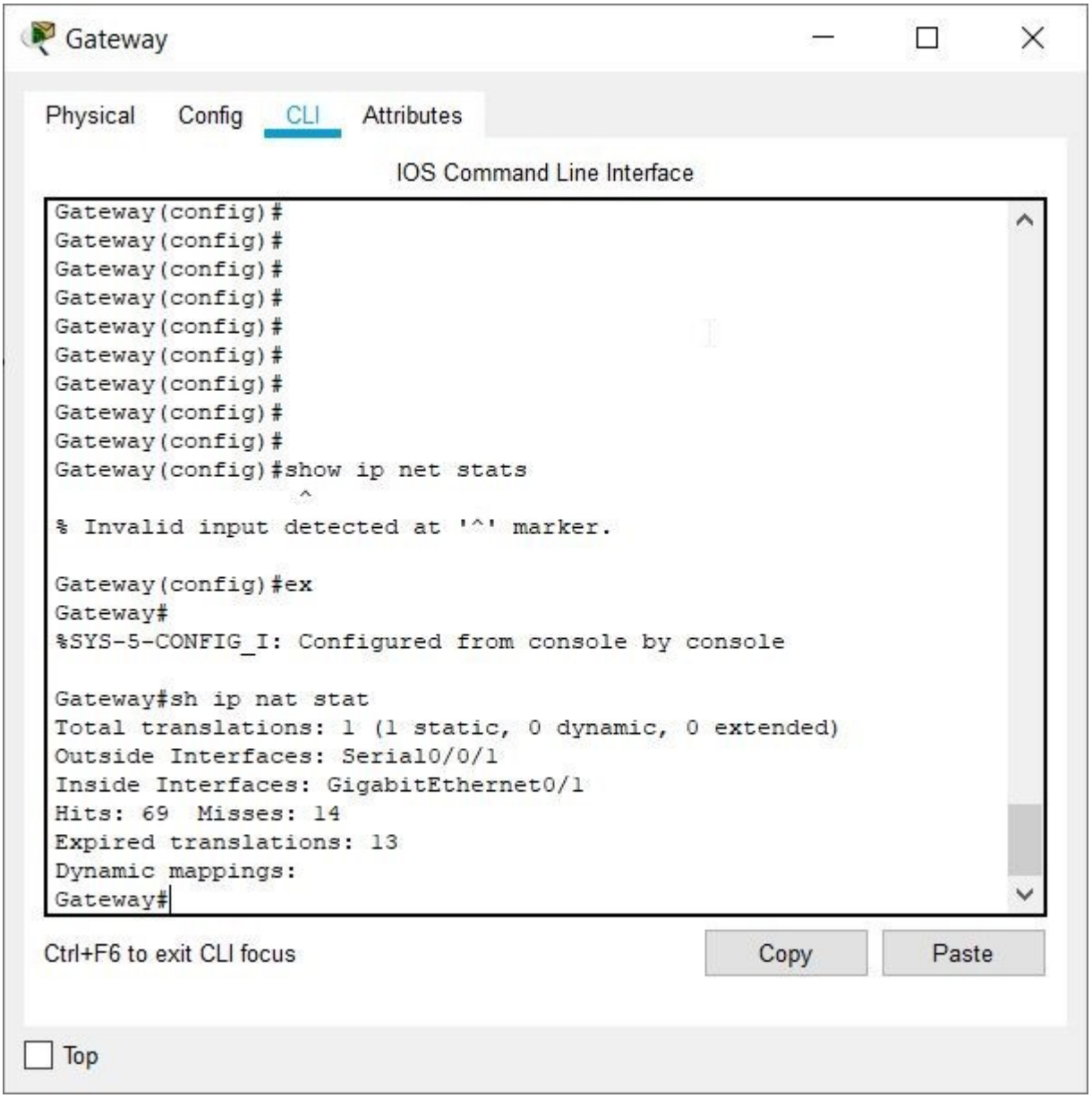
Clearing translations and statistics



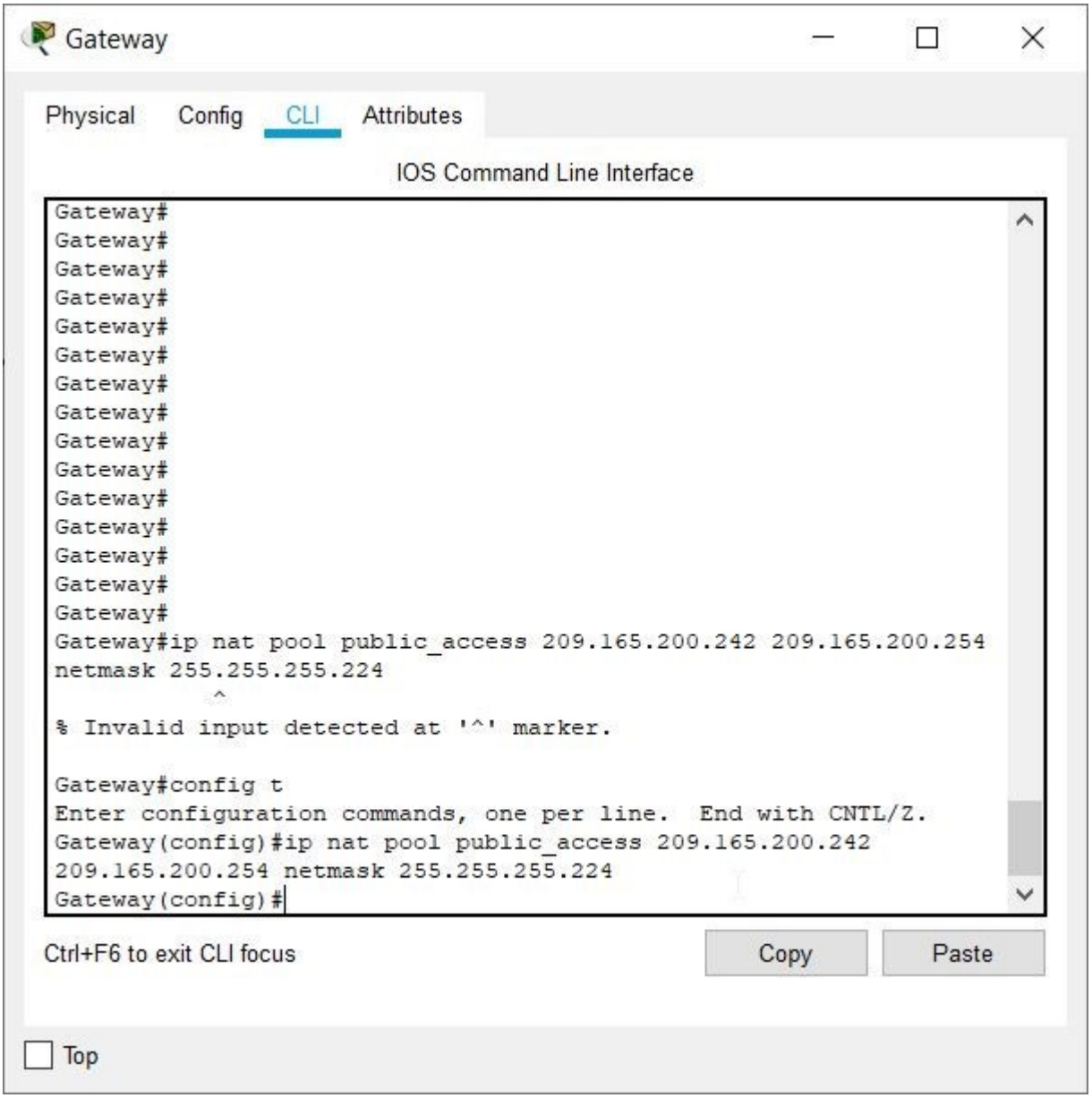
Assign access-list 1 to range 192.168.1.0 - 192.168.1.255



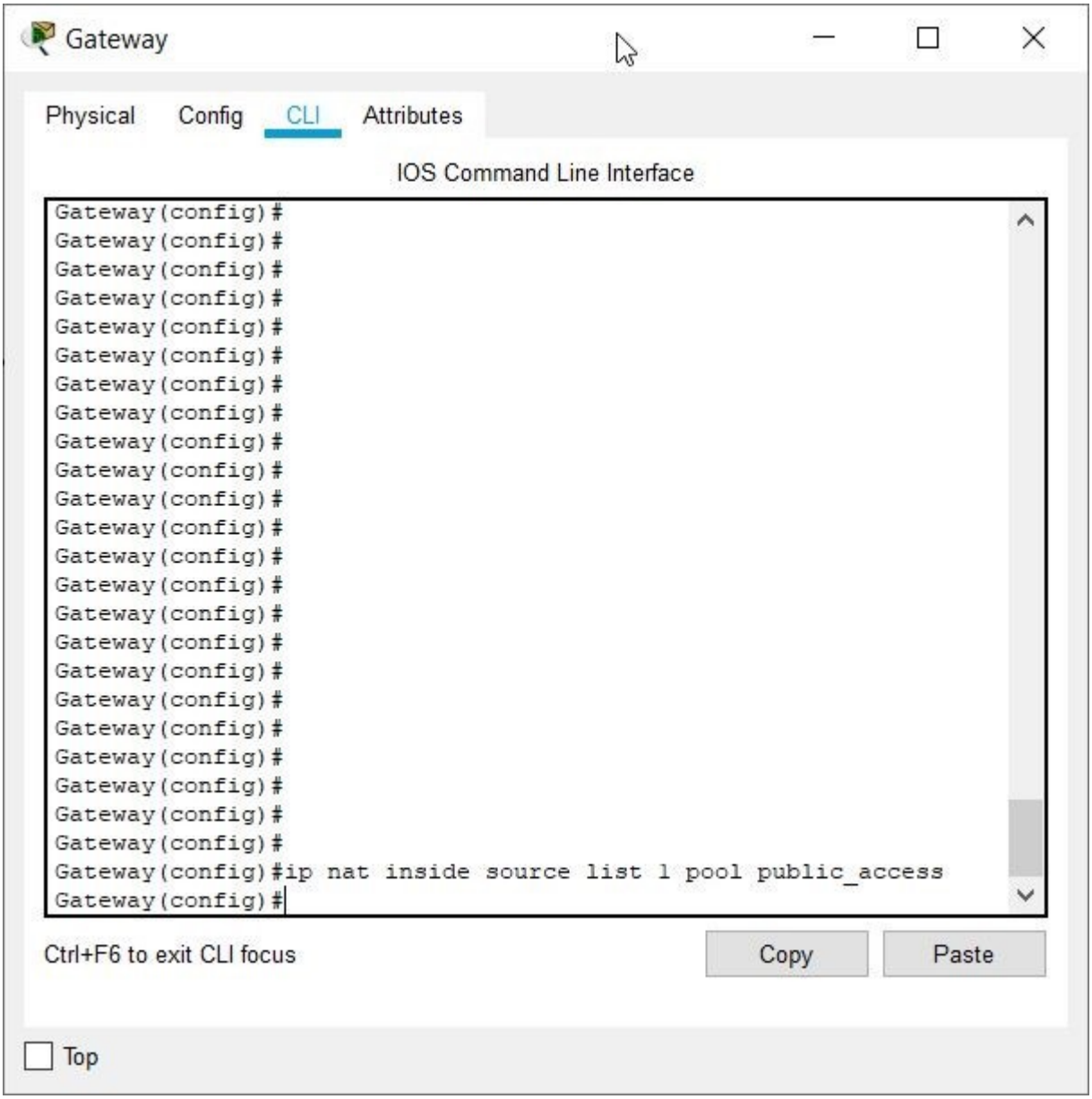
Show nat statistics



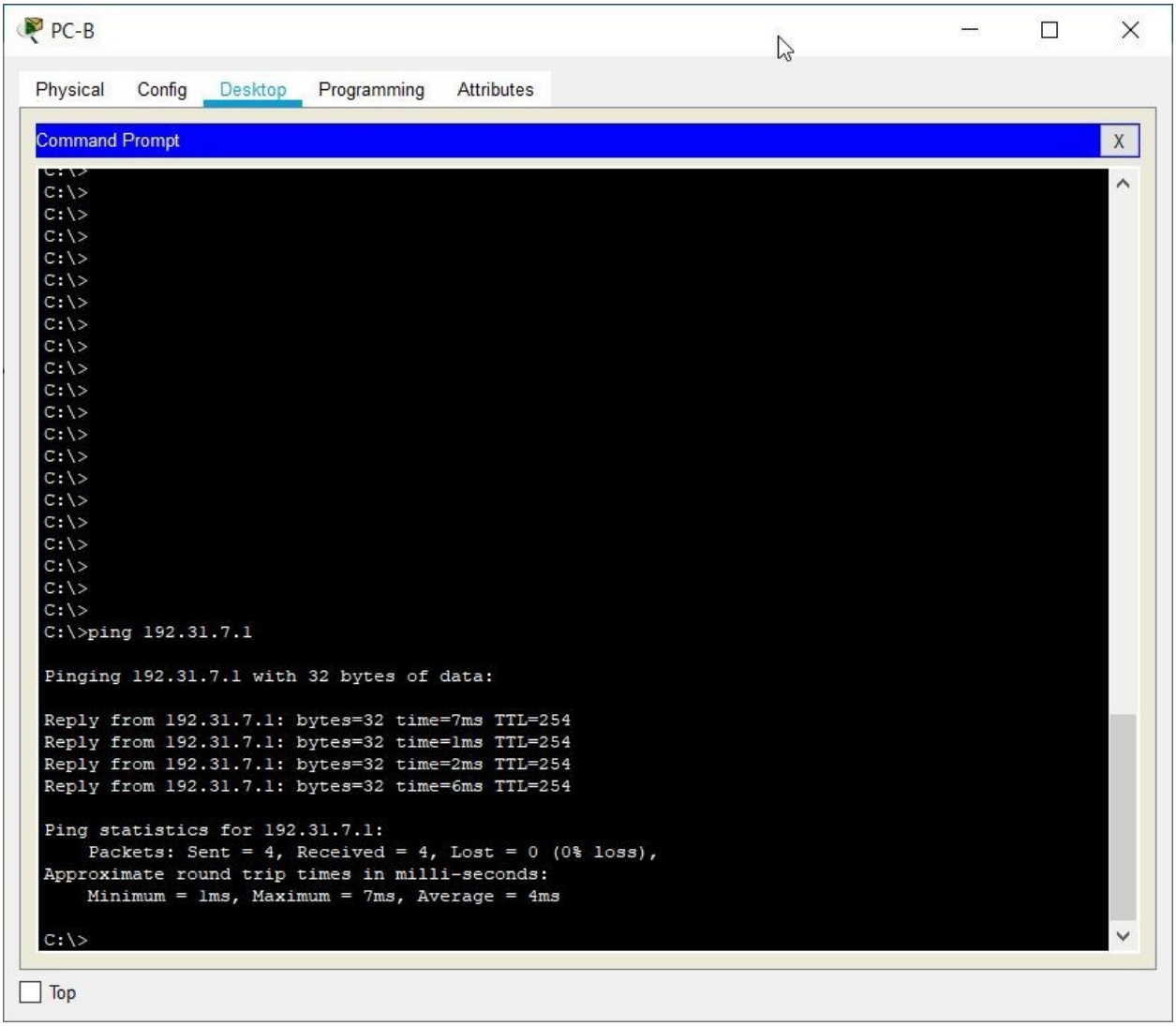
Make nat public pool 209.165.200.242 - 209.165.200.254 netmask 255.255.255.224



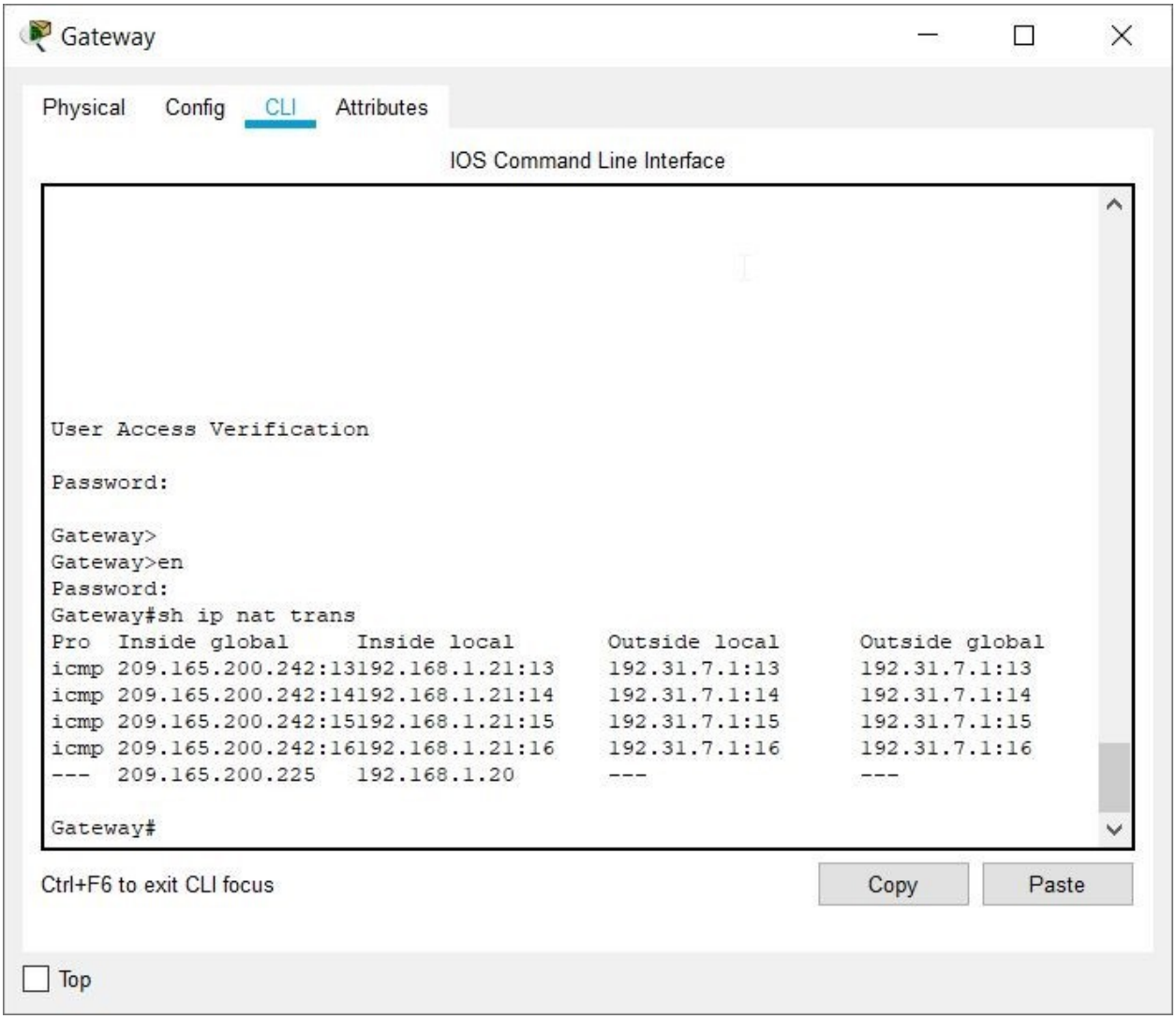
Link inside source-list to the outer pool



Ping Loopback0 from PC-B



Show NAT translation table



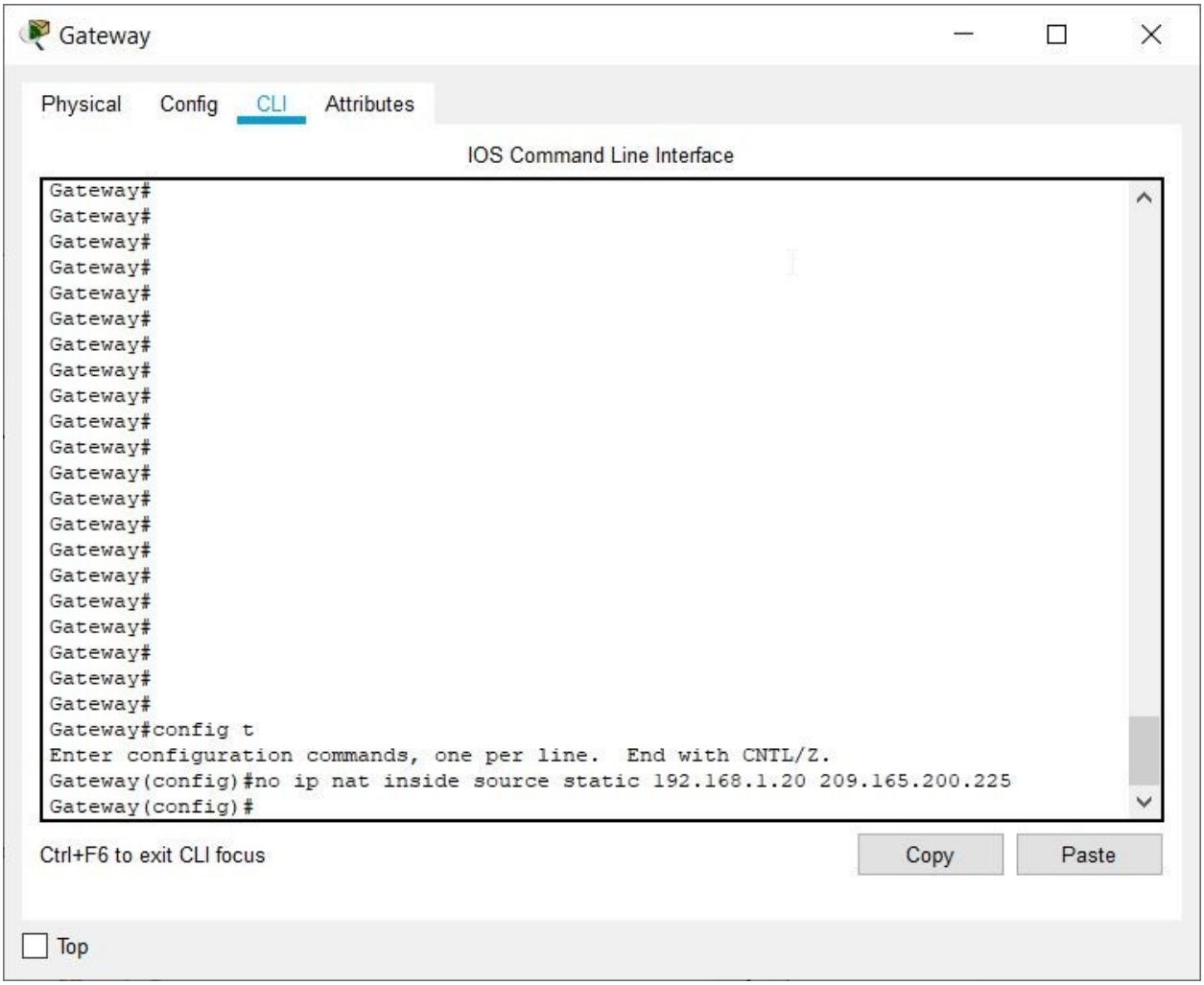
What is the translation of the Inside local host address for PC-B?

192.168.1.21 = 209.165.200.242

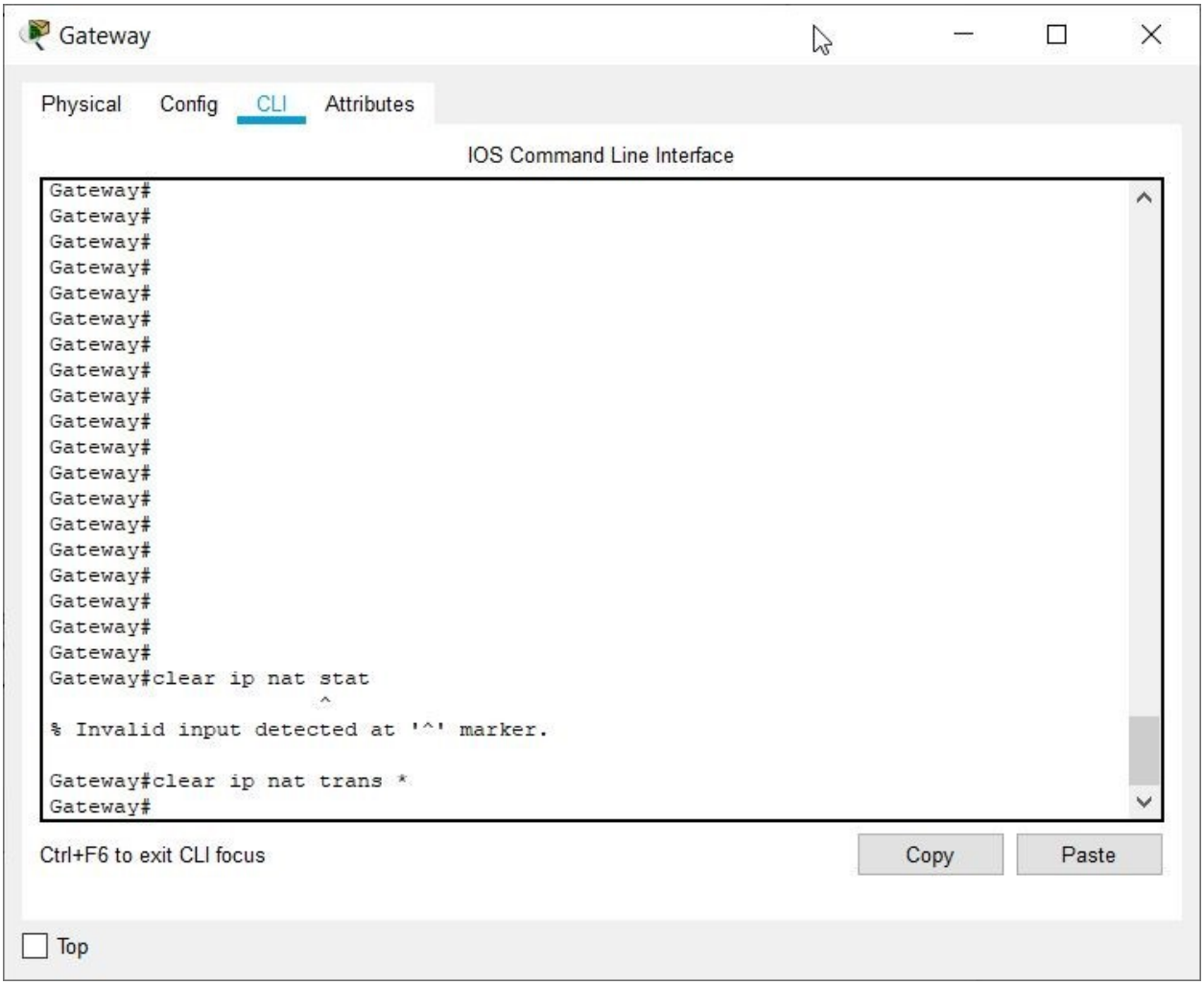
A dynamic NAT entry was added to the table with ICMP as the protocol when PC-B sent an ICMP message to 192.31.7.1 on ISP. What port number was used in this ICMP exchange?

4 port nos. were used for 4 ICMP exchanges for 4 pings. They are 13, 14, 15, 16.

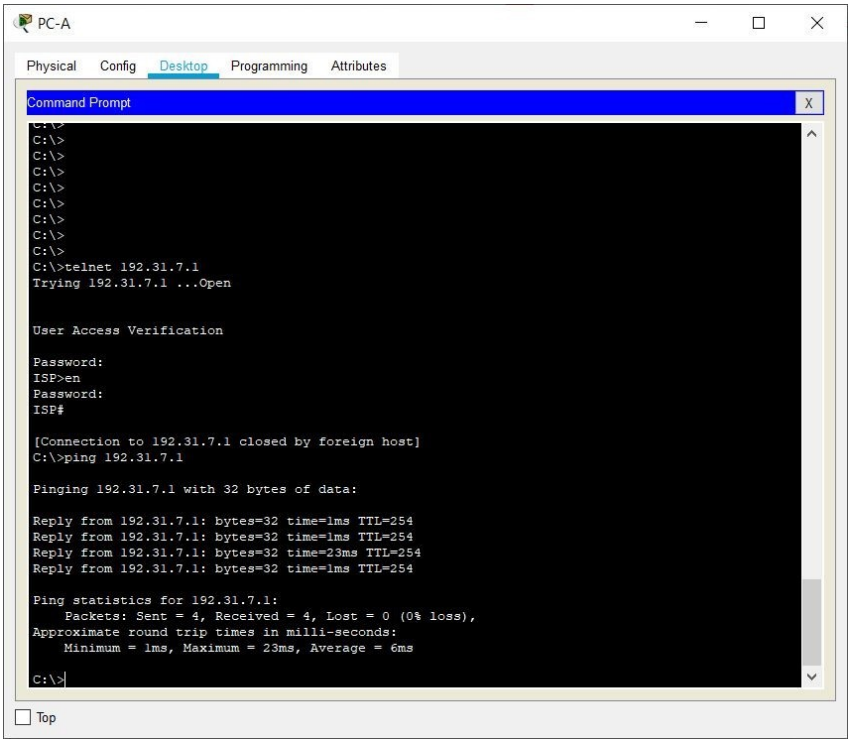
Removing static NAT from part 2

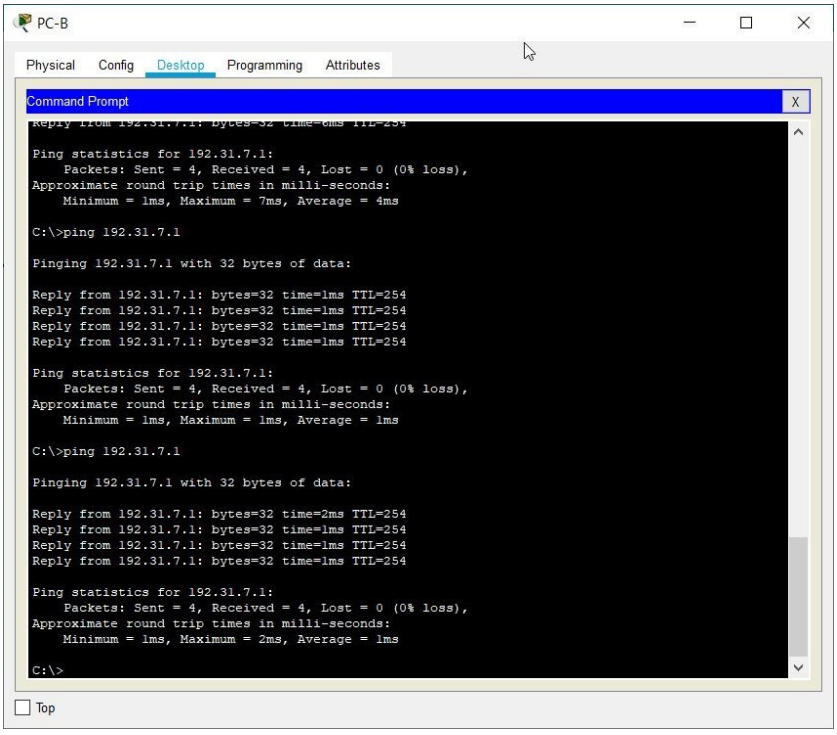


Clear NAT and STAT

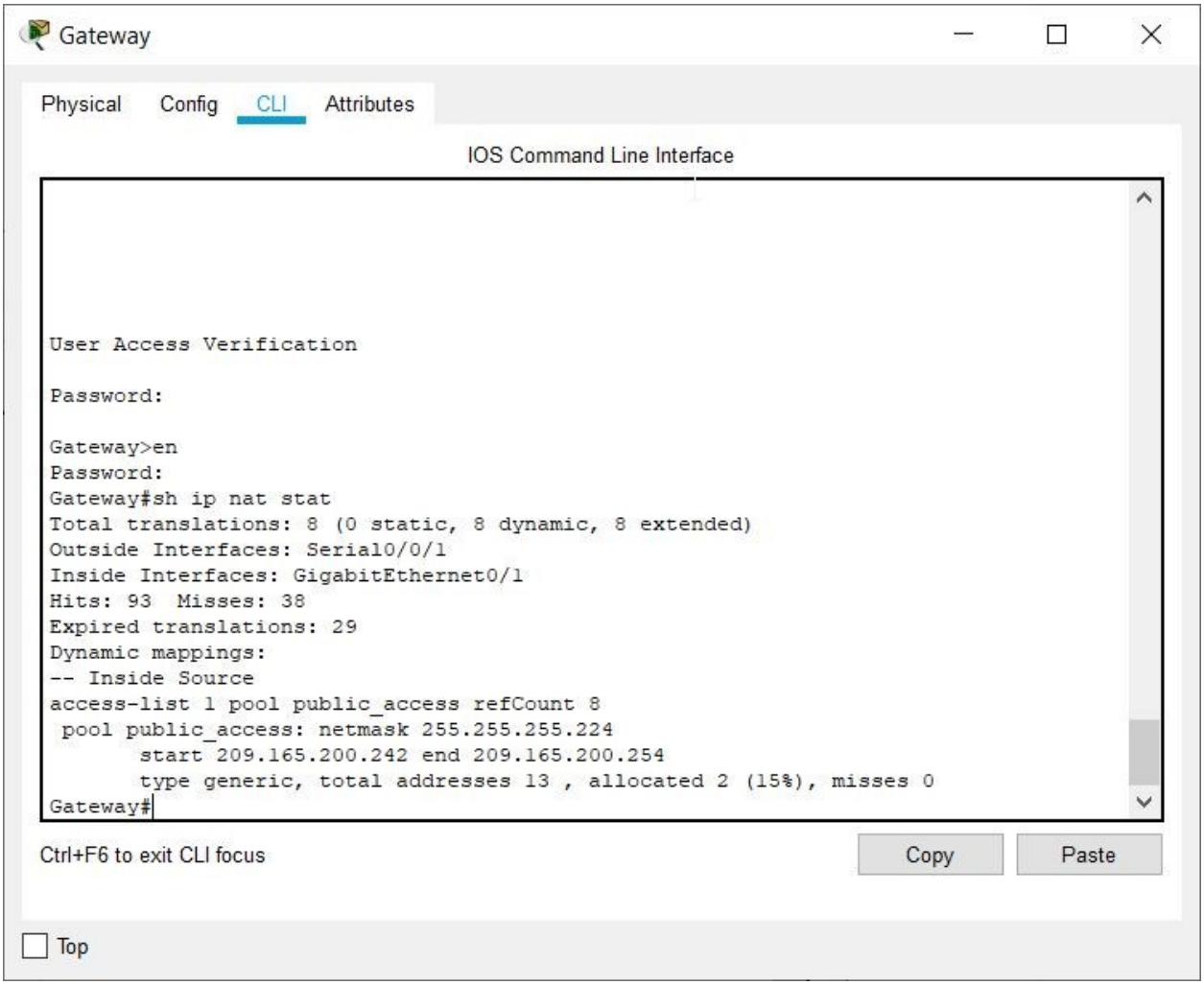


Ping ISP from both PC's

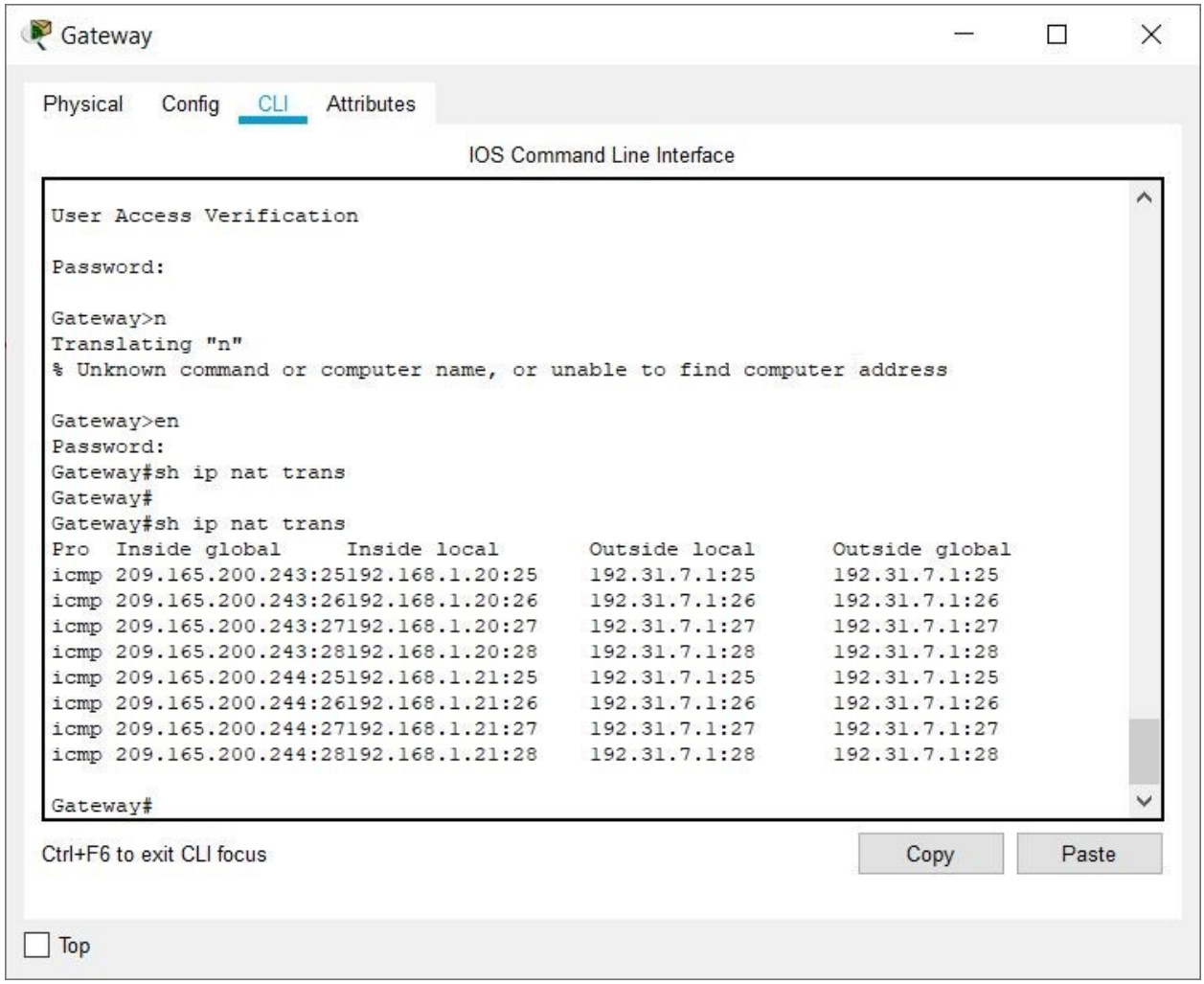




Show NAT statistics



Show nat translations


Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
User Access Verification
Password:
Gateway>n
Translating "n"
% Unknown command or computer name, or unable to find computer address
Gateway>en
Password:
Gateway#sh ip nat trans
Gateway#
Gateway#sh ip nat trans
Pro Inside global Inside local Outside local Outside global
icmp 209.165.200.243:25192.168.1.20:25 192.31.7.1:25 192.31.7.1:25
icmp 209.165.200.243:26192.168.1.20:26 192.31.7.1:26 192.31.7.1:26
icmp 209.165.200.243:27192.168.1.20:27 192.31.7.1:27 192.31.7.1:27
icmp 209.165.200.243:28192.168.1.20:28 192.31.7.1:28 192.31.7.1:28
icmp 209.165.200.244:25192.168.1.21:25 192.31.7.1:25 192.31.7.1:25
icmp 209.165.200.244:26192.168.1.21:26 192.31.7.1:26 192.31.7.1:26
icmp 209.165.200.244:27192.168.1.21:27 192.31.7.1:27 192.31.7.1:27
icmp 209.165.200.244:28192.168.1.21:28 192.31.7.1:28 192.31.7.1:28
Gateway#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top