



### IOS Command Line Interface

```
Router(config) #show ip rout
% Invalid input detected at '^' marker.
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#show ip rout
Codes: C - connected, S - static, I - IGRP, 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 directly connected, FastEthernet0/0
C 20.0.0.0/8 is directly connected, FastEthernet1/0
Router#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to
up
```

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Command Prompt
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```
Packet Tracer PC Command Line 1.0
PC>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Request timed out.

Reply from 20.0.0.1: bytes=32 time=0ms TTL=127

Reply from 20.0.0.1: bytes=32 time=0ms TTL=127

Reply from 20.0.0.1: bytes=32 time=0ms TTL=127

Ping statistics for 20.0.0.1:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```

## **Command Prompt**

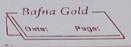
```
PC>ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:
Request timed out.
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Ping statistics for 20.0.0.1:
   Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
   Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC>ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:
Reply from 20.0.0.1: bytes=32 time=1ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=16ms TTL=127
Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 16ms, Average = 4ms
```

22/6/23 Expuriment 2 1 to 39 makes the Thursday din- configure IP adoling to router Exploring nerages ping response doctoratur unecontraste request timed many mapagin in its without at it is highly Topology is here was a comment De Bud at at Rallol mell / RowerzyPT o Routero 0.0.100.0.10 #20 Any 1: 10 0 01 mon \$ 20.0.0 () PC-PT PC-PT PC1 PCO. 20.0.0.1 south = 4 Becamed = 4.) Amorana rematha has in mill Marrison = one, Manning = 12m. Puachus: add a nauter and 2 pe's in the workspace add tabels of SP addlesses to each of the dervices. and to adder of PCI as 10-0,0.1 in config and ret galoway to 10.0.0.10 in he glabal setting uption. unilouly let Ip of PC2 to 10-0.0.1 and

Bafna Gold gateway as 20.0.0.10 her week a copper case once connection to connect unital D the up adden of and educed per our yell by diclains longing & fastathernet stradden global cettings is gareway. set up the interface of monitor from following commands: ender no and pure enter for nouter once forter oppears stort! Routee > enable Poutee # config t Route (config) # interface fortethernet 0/0 Route (config y) # BP addees 10.0.0.10 255.0.00 Router (config if) #10- Sheet Butur (config if) # erit similarly to let interface of norther with PCI pues "h' key and thange. Hinterface jostethernet 1/0 #3Padous 20.0.0.10 258.0.0.0. ( so sumore &p addien no IP can be used The sneet #-enet show It rout can be used to see the Il nout configuration. Observation; after following the procedures specified yeld one and derice PCO reich on peo west dusktop - commanalprompt give a tormand to pring pc> ping 20.0.0.1

the first output will be received and Request timed out ! of therefore the command should be given PC putg 2000 10. 10 be encession gos off of no pings per though the moutee sombujace set of north enth & defferen end devices helps to so receive nessage from PCO and then send It to PM with Readdeting gateway addery 20.0.0.10 and 8P address 20.0.01. + pignon the election when poor unde merrage the merrage und to per. same from 11 th early righter to see integers of waltering Per pesping 1000.00 por 100. Ringing 20.0.0.1 with 25 better of data.

Requiet timed out lepty from 20.0.0.1. byte = 32 time 20 mg JTL = 127 Reply from 20.0.0.1: byles=32 time=0me TTL=127 Puply from 20.0.011. befer=32 timesoms TTL=127 Ring Alotatices for 120.0.0:1:19 11 and Portets; sent = 4 Received = 3 Loct = 1 (25 0 10 coss) 5 Approximate round trip times in milli seconds Minimum zome, Manmum zome, Average zome OC 7 ping 20.00.1 Binging 10.0001 with 32 byles of data: Ropey from 10.0 0.1' bytes = 32 time 2 mg 77/2/29 Reply from 20.0.0" | before 32 times one TTL=127



Reply from 20.0.0.1: bytes= 32 time = ome flatitice for 20.00,1 Monimum some marinum 22 mg Average = on



#### IOS Command Line Interface

```
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
exit
Router(config) #interface serial 3/0
Router(config-if) #IP address 30.0.0.10 255.0.0.0
Router(config-if) #no shut
%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#exit
Router(config) #show IP rout
% Invalid input detected at '^' marker.
Router(config) #exit
%SYS-5-CONFIG_I: Configured from console by console
show IP rout
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      {\tt N1} - OSPF NSSA external type 1, {\tt 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
  20.0.0.0/8 is directly connected, Serial2/0
```

#### IOS Command Line Interface

```
Router>config t
% Invalid input detected at '^' marker.
Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config) #IP rout 30.0.0.0 255.0.0.0 20.0.0.20
Router(config) #IP rout 40.0.0.0 255.0.0.0 20.0.0.20
Router(config) #exit
Router#
%SYS-5-CONFIG I: Configured from console by console
show IP rout
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       {\tt N1} - OSPF NSSA external type 1, {\tt 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 directly connected, FastEthernet0/0
    20.0.0.0/8 is directly connected, Serial2/0
    30.0.0.0/8 [1/0] via 20.0.0.20
S
    40.0.0.0/8 [1/0] via 20.0.0.20
Router#
```



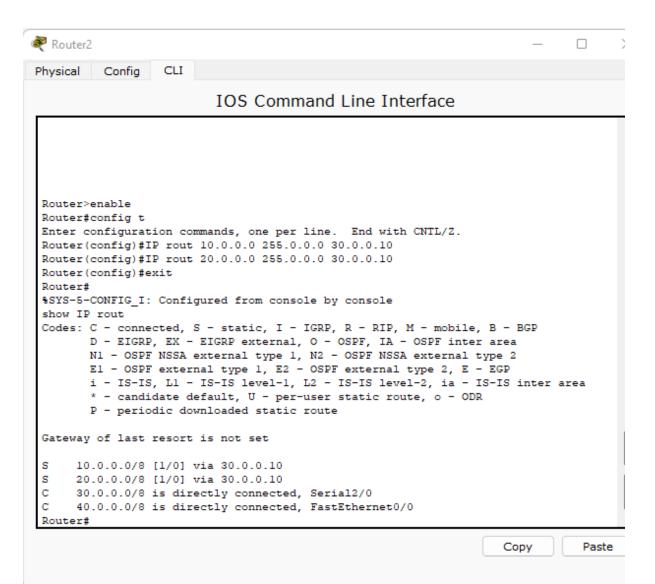
#### IOS Command Line Interface

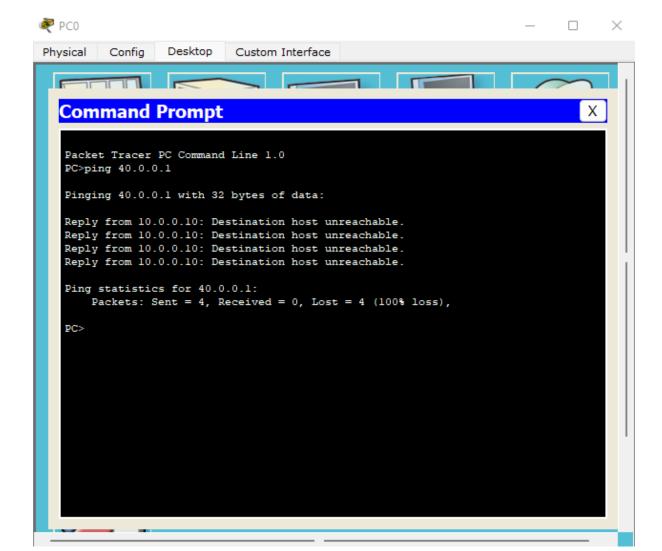
```
Router>enable
Router#config t
Enter configuration commands, one per line. End with {\tt CNTL/Z}.
Router(config) #IP rout 10.0.0.0 255.0.0.0 20.0.0.10
Router(config) #IP rout 40.0.0.0 255.0.0.0 30.0.0.20
Router(config) #exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
show IP rout
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
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      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 [1/0] via 20.0.0.10
     20.0.0.0/8 is directly connected, Serial2/0
C
     30.0.0.0/8 is directly connected, Serial3/0
    40.0.0.0/8 [1/0] via 30.0.0.20
Router#
```

Сору

Paste

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# **Command Prompt**

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X
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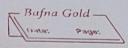
```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=3ms TTL=125
Reply from 10.0.0.1: bytes=32 time=1lms TTL=125
Reply from 10.0.0.1: bytes=32 time=2ms TTL=125
Reply from 10.0.0.1: bytes=32 time=2ms TTL=125
Ping statistics for 10.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 1lms, Average = 4ms
PC>
```

dim configures IP address to swower En home stamonezoio.v.20 Topology: Mart 12 20.0.00 20,0.0.20,111330.610.101111111 ROUTER PT ROUTER-PT 3 TO ROUTER-PT Revoter O Router 1 Routuz 10.0.0.10 40.0.010 PLO PEPT 10.0.0.1 PCI 1.0.0.01 Ruscidine! three generic hardens to the wortspace, add e the EP addines and gaberray addlers and pointers one end deules peo contig -> fact ethernit -> EP address as 10.0.0.1 config - grobal settings -> gotelway gotevay to 10.0.0.10 select another end device PCI set Epodolees

Bafna Gold \_\_\_\_ as 40.0.0.1 and goton gateway as 40.0.0.10 meng united Hope. prim outron at 009 corppor toron once from fartethernos of 160 to fallethant of \* connect rouses to soules love using wind cable from serial 2/0 of nantero la remial 2/0 of nouteel Decorrect norder to nower a wing receial cable using sended 310 of parter and several 210 of nantero ? another end delice per is connected to issue wing copper cocon ones connection from fortether met of PCI to fartethernet 0/0 of houter 2 & Transpace of souder are not by following commande: evect a portee > CAT for Route O; pres no and enter forther opable Route # config t Pouter(config) # interface fasteliment 0/0 Bruter (config.)#8P address 10.0 0.10 255.0.0.0 Porter(config if) # no shut houtu(congay) # exit North (config)# interfere serial 40 Parter (ronging if) # 8P addless 20.0.0.10 255.0.0.0 Control configury) # 188 Meet Route (unfig) # exit Show It rout Smilarly for Ruttel; enter no and pressences Partiet config t Pouter ( congig) # 1/reletore reint 2/0

Rauter (config-if) HBP address 20.0.0.20 255.0.00 Router config-18) # no shut Router(config-19)#exit Router (config-if) Hinterface serials 10 Router (config re) HBP address 30.0.0110 2550.00 Power (config-if) the shut sound transmit Prouter (config - if) Henrit I do I mus similarly for house 2 type no prees entre pues entre Patter > enable. only also injust Porterty config + land has leding Pouter(config) # in breaco serial 2/0 Pouter (60 n# 9-if) #9P adolre \$ 30.0. \$20 255.0.0.0 Pourter (config-if) # no shut al 19 10 11 Parter (config-if) # enits Pouter(config -if) # interface factethornes of Parter (config-1f) # & paddrew 10.0.0.10 255,000.0 Pouter (config- if) # no sheet admaration and Power (config-if) Herit. I permit whose Show dapper out to see to the letters went D now select to and derice and lessed desktop + tomorand prompt to a get stelo PC> ping HO O.O.I time #/11 maralletinas will be unable to pring truggere to ingigin select Routers > CLTAR BITT (DIMMO TIEVER) Pouter # config t time # / softer letters! Pouter (config-1:f) # IP mout 30:0.0:0 255:0:0:0 20.0:0020 Routed config. it) ATP rout 40.000 255,0.0.0 20.0.0.20 Parter (vorting - If) Hemit. Show IP rout college so the metal the contractions



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1, 1, 17	similarly for Bouter1
	Pouter#Config t
17 No. 5 1-4	Power (working - if) #TP nout 10.0.00 255.0.000 2000 10
	Router[ working - 9P) # JP rout 40.0.0.0 2550:0.0 30.0.0.20
	Poreter (long-17) # enit
	Show RP rout
	similary for Parter?
	Pouter# config +
	Rouser[config - 1f) # IP rout 10.0.0.0 2550.0.0 30.0010
	Pouter ( Ofig it IP nout 20.0.0.0 255.0.0.0 30.0.0.0)
	Pouter (consig if) + Beit
	Show IP mot and to and have
*	relect endduire PCI > ductop)
	command prompt PC> pring 10.0.0.1
. 2.2	the aute will be pinged
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18200	obellevation:
3	a relicted end delike prile not be
	who to pung the destruction preparative
1-2	conter a configured.
()30)	destination is perged after the procedure
/	is completed.
/	740133
	RP ROUTE FAF
	for Portego and a propose
	Show IP wout
	coder: C-connetted, S-Septic, T-Jealf, R-RIP
201	M-Mobile, B-Baper
201-17	D-EIGRP, EX-ETGRT entered; 10-OSPF, ZP-OSPF
	were area, and area,
Robert 184	NI-OSPF NSCA enternal-type, N2-OSPF NSO enternal
- and	type 2
	81

EI-OSPF entural-type 1, E2-OSPF enternal types E-EGP 1- JSTS, LI - IS-IS povel -1, 12- PS-PS lovely, 3a - Isa \* - condidate eletarle, v-per-user statisticke nouse O-ODR P- periodic downloaded static roube Coloury of last resort is not set the last 10.0.0.0/8 is directly connected, Rotterhandy PING OUTPUT HOTHER PHOOD YOU cares (when it is unreachable) PC > ping 1/40.0.0.11 37:11/2/2019 +19/03/6 Pinging 40.0.01 with 32 bytel of data; Reply from 10:00:0:10 Desemblish hot unsuachable lepty from 10.0.0.10: Destination hast unreachable Reply from 10.0.0.10. Destination host up reachable Reply from 10.0.010. Perthation host an reachable Ping statistics for 4000 0.11: packets : sent et, Received =0, Lost =1 so some herry warmen (100% loss) DESURT PC> ping 10.0.0.1 997 37000 97 Pinging 10.10.01 with 32 bytes of douta: Reply from 10-0-01: bytes=32 time =3 me TIL = 125 Reply from 10.001: bytes=32 time=11me TIL=125 Reply from 10.0.0.1, bytes=32 time=2me TJL = RS Reply from 10.0.0.1: bytes=32 time=2ms JIL=125 Priz statistics for 10.0-0.11 Packets: sent = , Received = 4, Lost 20 (0 1/2014) Approximate sound top time in milli-scionds

