| Device | Interface | IP address | Subnet Mask | Def Gat |
| --- | --- | --- | --- | --- |
| UB1 | Fa 6/0 | 192.168.88.1 | 255.255.254.0 | N/A |
|  | S1/0 | 192.168.91.65 | 255.255.255.248 | N/A |
|  | S2/0 | 192.168.91.73 | 255.255.255.248 | N/A |
|  | S3/0 | 192.168.91.81 | 255.255.255.248 | N/A |
|  | S4/0 | 192.168.91.89 | 255.255.255.248 | N/A |
|  | S5/0 | 192.168.91.97 | 255.255.255.248 | N/A |
|  | S0/0 | 192.168.91.105 | 255.255.255.248 | N/A |
| UB2 | Fa 5/0 | 192.168.90.1 | 255.255.255.0 | N/A |
|  | S0/0 | 192.168.91.67 | 255.255.255.248 | N/A |
|  | S1/0 | 192.168.91.113 | 255.255.255.248 | N/A |
|  | S2/0 | 192.168.91.121 | 255.255.255.248 | N/A |
|  | S3/0 | 192.168.91.129 | 255.255.255.248 | N/A |
|  | S4/0 | 192/168.91.137 | 255.255.255.248 | N/A |
| UB3 | Fa 5/0 | 192.168.72.1 | 255.255.248.0 | N/A |
|  | S0/0 | 192.168.91.75 | 255.255.255.248 | N/A |
|  | S1/0 | 192.168.91.115 | 255.255.255.248 | N/A |
|  | S2/0 | 192.168.91.145 | 255.255.255.248 | N/A |
|  | S3/0 | 192.168.91.153 | 255.255.255.248 | N/A |
|  | S4/0 | 192.168.91.161 | 255.255.255.248 | N/A |
| UB4 | Fa 5/0 | 192.168.80.1 | 255.255.248.0 | N/A |
|  | S0/0 | 192.168.91.83 | 255.255.255.248 | N/A |
|  | S1/0 | 192.168.91.123 | 255.255.255.248 | N/A |
|  | S2/0 | 192.168.91.147 | 255.255.255.248 | N/A |
|  | S3/0 | 192.168.91.169 | 255.255.255.248 | N/A |
|  | S4/0 | 192.168.91.177 | 255.255.255.248 | N/A |
| UB5 | Fa 5/0 | 192.168.91.1 | 255.255.255.192 | N/A |
|  | S0/0 | 192.168.91.91 | 255.255.255.248 | N/A |
|  | S1/0 | 192.168.91.131 | 255.255.255.248 | N/A |
|  | S2/0 | 192.168.91.155 | 255.255.255.248 | N/A |
|  | S3/0 | 192.168.91.171 | 255.255.255.248 | N/A |
|  | S 4/0 | 192.168.91.185 | 255.255.255.248 | N/A |
| UB6 | Fa 1/0 | 192.168.0.1 | 255.255.192.0 | N/A |
|  | S0/0 | 192.168.91.107 | 255.255.255.248 | N/A |
| UB7 | Fa 5/0 | 192.168.64.1 | 255.255.248.0 | N/A |
|  | S 0/0 | 192.168.91.99 | 255.255.255.248 | N/A |
|  | S 1/0 | 192.168.91.139 | 255.255.255.248 | N/A |
|  | S 2/0 | 192.168.91.163 | 255.255.255.248 | N/A |
|  | S 3/0 | 192.168.91.179 | 255.255.255.248 | N/A |
|  | S 4/0 | 192.168.91.187 | 255.255.255.248 | N/A |
| PC0 | N/A | 192.168.88.3 | 255.255.254.0 | 192.168.88.1 |
| PC1 | N/A | 192.168.88.5 | 255.255.254.0 | 192.168.88.1 |
| PC2 | N/A | 192.168.90.3 | 255.255.255.0 | 192.168.90.1 |
| PC3 | N/A | 192.168.90.5 | 255.255.255.0 | 192.168.90.1 |
| PC4 | NA | 192.168.72.3 | 255.255.248.0 | 192.168.72.1 |
| PC5 | NA | 192.168.72.5 | 255.255.248.0 | 192.168.72.1 |
| PC6 | N/A | 192.168.80.3 | 255.255.248.0 | 192.168.80.1 |
| PC7 | N/A | 192.168.80.5 | 255.255.248.0 | 192.168.80.1 |
| PC8 | N/A | 192.168.91.3 | 255.255.192.0 | 192.168.91.1 |
| PC9 | N/A | 192.168.91.5 | 255.255.192.0 | 192.168.91.1 |
| PC10 | N/A | 192.168.64.3 | 255.255.248.0 | 192.168.64.1 |
| PC11 | N/A | 192.168.64.5 | 255.255.248.0 | 192.168.64.1 |

**UB1**

UB1>enable

UB1#config t

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

UB1(config)#int fa 6/0

UB1(config-if)#ip address 192.168.88.1 255.255.254.0

UB1(config-if)#no shut

UB1(config-if)#

%LINK-5-CHANGED: Interface FastEthernet6/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet6/0, changed state to up

UB1(config-if)#end

UB1#

%SYS-5-CONFIG\_I: Configured from console by console

UB1#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB1#

UB1>enable

UB1#config t

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

UB1(config)#int s1/0

UB1(config-if)#ip address 192.168.91.65 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial1/0, changed state to down

UB1(config-if)#exit

UB1(config)#int s2/0

UB1(config-if)#ip address 192.168.91.73 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down

UB1(config-if)#exit

UB1(config)#int s3/0

UB1(config-if)#ip address 192.168.91.81 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down

UB1(config-if)#exit

UB1(config)#int s4/0

UB1(config-if)#ip address 192.168.91.89 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial4/0, changed state to down

UB1(config-if)#exit

UB1(config)#int s5/0

UB1(config-if)#ip address 192.168.91.97 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial5/0, changed state to down

UB1(config-if)#exit

UB1(config)#int s0/0

UB1(config-if)#ip address 192.168.91.105 255.255.255.248

UB1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0, changed state to down

UB1(config-if)#end

UB1#

%SYS-5-CONFIG\_I: Configured from console by console

UB1#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

===

UB1#enable

UB1#config t

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

UB1(config)#ip route 192.168.90.0 255.255.255.0 S1/0

UB1(config)#ip route 192.168.72.0 255.255.248.0 S2/0

UB1(config)#ip route 192.168.80.0 255.255.248.0 S3/0

UB1(config)#ip route 192.168.91.0 255.255.255.192 S4/0

UB1(config)#ip route 192.168.64.0 255.255.248.0 S5/0

UB1(config)#exit

**UB2**

UB2>enable

UB2#

UB2#config t

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

UB2(config)#int fa 5/0

UB2(config-if)#ip address 192.168.90.1 255.255.255.0

UB2(config-if)#no shut

UB2(config-if)#

%LINK-5-CHANGED: Interface FastEthernet5/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/0, changed state to up

UB2(config-if)#end

UB2#

%SYS-5-CONFIG\_I: Configured from console by console

UB2#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB2#

—

UB2#config t

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

UB2(config)#int s0/0

UB2(config-if)#ip address 192.168.91.67 255.255.255.248

UB2(config-if)#no shutdown

UB2(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

—--

UB2>enable

UB2#config t

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

UB2(config)#int s1/0

UB2(config-if)#ip address 192.168.91.113 255.255.255.248

UB2(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial1/0, changed state to down

UB2(config-if)#exit

UB2(config)#int s2/0

UB2(config-if)#ip address 192.168.91.121 255.255.255.248

UB2(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down

UB2(config-if)#exit

UB2(config)#int s3/0

UB2(config-if)#ip address 192.168.91.129 255.255.255.248

UB2(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down

UB2(config-if)#exit

UB2(config)#int s4/0

UB2(config-if)#ip address 192.168.91.137 255.255.255.248

UB2(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial4/0, changed state to down

UB2(config-if)#end

UB2#

%SYS-5-CONFIG\_I: Configured from console by console

UB2#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

=====

+++++++++latest

UB2#enable

UB2#config t

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

UB2(config)#ip route 0.0.0.0 0.0.0.0 S0/0

UB2(config)#router rip

UB2(config-router)#version 2

UB2(config-router)#no auto-summary

UB2(config-router)#network 192.168.91.64

UB2(config-router)#network 192.168.91.136

UB2(config-router)#network 192.168.91.128

UB2(config-router)#network 192.168.91.120

UB2(config-router)#network 192.168.91.112

UB2(config-router)#network 192.168.90.0

UB2(config-router)#passive-interface F5/0

UB2(config-router)#end

UB2#

**UB3**

UB3>enable

UB3#config t

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

UB3(config)#int s0/0

UB3(config-if)#ip address 192.168.91.75 255.255.255.248

UB3(config-if)#no shutdown

UB3(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

—

UB3>enable

UB3#config t

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

UB3(config)#int s1/0

UB3(config-if)#ip address 192.168.91.115 255.255.255.248

UB3(config-if)#no shutdown

UB3(config-if)#

%LINK-5-CHANGED: Interface Serial1/0, changed state to up

UB3(config)#int s2/0

UB3(config-if)#ip address 192.168.91.145 255.255.255.248

UB3(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down

UB3(config-if)#exit

UB3(config)#int s3/0

UB3(config-if)#ip address 192.168.91.153 255.255.255.248

UB3(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down

UB3(config-if)#exit

UB3(config)#int s4/0

UB3(config-if)#ip address 192.168.91.161 255.255.255.248

UB3(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial4/0, changed state to down

UB3(config-if)#end

UB3#

%SYS-5-CONFIG\_I: Configured from console by console

UB3#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB3#

>>ip route 192.168.91.0 255.255.255.192 s3/0 5

(floating route)

====

UB3>enable

UB3#config t

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

UB3(config)#ip route 192.168.88.0 255.255.254.0 S0/0

UB3(config)#ip route 192.168.0.0 255.255.192.0 S0/0

UB3(config)#ip route 0.0.0.0 0.0.0.0 S0/0

UB3(config)#ip route 192.168.90.0 255.255.255.0 S1/0

UB3(config)#ip route 192.168.80.0 255.255.248.0 S2/0

UB3(config)#ip route 192.168.91.0 255.255.255.192 S2/0

UB3(config)#ip route 192.168.64.0 255.255.248.0 S4/0

UB3(config)#end

UB3#

**UB4**

UB4>enable

UB4#config t

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

UB4(config)#int f 5/0

UB4(config-if)#ip address 192.168.80.1 255.255.248.0

UB4(config-if)#no shut

UB4(config-if)#

%LINK-5-CHANGED: Interface FastEthernet5/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/0, changed state to up

UB4(config-if)#end

UB4#

%SYS-5-CONFIG\_I: Configured from console by console

UB4#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB4>enable

UB4#config t

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

UB4(config)#int s0/0

UB4(config-if)#ip address 192.168.91.83 255.255.255.248

UB4(config-if)#no shutdown

UB4(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

UB4>enable

UB4#config t

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

UB4(config)#int s1/0

UB4(config-if)#ip address 192.168.91.123 255.255.255.248

UB4(config-if)#no shutdown

UB4(config-if)#

%LINK-5-CHANGED: Interface Serial1/0, changed state to up

UB4>enable

UB4#config t

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

UB4(config)#int s2/0

UB4(config-if)#ip address 192.168.91.147 255.255.255.248

UB4(config-if)#no shutdown

UB4(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

UB4>enable

UB4#config t

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

UB4(config)#int s3/0

UB4(config-if)#ip address 192.168.91.169 255.255.255.248

UB4(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down

UB4(config-if)#exit

UB4(config)#int s4/0

UB4(config-if)#ip address 192.168.91.177 255.255.255.248

UB4(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial4/0, changed state to down

UB4(config-if)#exit

UB4(config)#exit

UB4#

%SYS-5-CONFIG\_I: Configured from console by console

UB4#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB4#

=========

**UB5**

UB5>enable

UB5#config t

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

UB5(config)#int fa 5/0

UB5(config-if)#ip address 192.168.91.1 255.255.255.192

UB5(config-if)#no shut

UB5(config-if)#

%LINK-5-CHANGED: Interface FastEthernet5/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet5/0, changed state to up

UB5(config-if)#end

UB5#

%SYS-5-CONFIG\_I: Configured from console by console

UB5#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB5#

UB5>enable

UB5#config t

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

UB5(config)#int s0/0

UB5(config-if)#ip address 192.168.91.91 255.255.255.248

UB5(config-if)#no shutdown

UB5(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

UB5>enable

UB5#config t

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

UB5(config)#int s1/0

UB5(config-if)#ip address 192.168.91.131 255.255.255.248

UB5(config-if)#no shutdown

UB5(config-if)#

%LINK-5-CHANGED: Interface Serial1/0, changed state to up

UB5>enable

UB5#config t

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

UB5(config)#int s2/0

UB5(config-if)#ip address 192.168.91.155 255.255.255.248

UB5(config-if)#no shutdown

UB5(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5

UB5>enable

UB5#config

Configuring from terminal, memory, or network [terminal]? t

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

UB5(config)#int s3/0

UB5(config-if)#ip address 192.168.91.171 255.255.255.248

UB5(config-if)#no shutdown

UB5>enable

UB5#config t

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

UB5(config)#int s4/0

UB5(config-if)#ip address 192.168.91.185 255.255.255.248

UB5(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial4/0, changed state to down

UB5(config-if)#

UB5(config-if)#end

UB5#

%SYS-5-CONFIG\_I: Configured from console by console

UB5#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB5#

===

UB5>

UB5>enable

UB5#config t

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

UB5(config)#ip route 192.168.80.0 255.255.248.0 S3/0

UB5(config)#ip route 192.168.88.0 255.255.254.0 S0/0

UB5(config)#ip route 192.168.0.0 255.255.192.0 S0/0

UB5(config)#ip route 0.0.0.0 0.0.0.0 S0/0

UB5(config)#ip route 192.168.90.0 255.255.255.0 S3/0

UB5(config)#ip route 192.168.72.0 255.255.248.0 S3/0

UB5(config)#ip route 192.168.64.0 255.255.248.0 S3/0

UB5(config)#end

**UB6**

UB6>enable

UB6#config t

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

UB6(config)#int fa 1/0

UB6(config-if)#ip address 192.168.0.1 255.255.192.0

UB6(config-if)#no shutdown

UB6(config-if)#

%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

UB6(config-if)#end

UB6#

%SYS-5-CONFIG\_I: Configured from console by console

UB6#copy start run

%% Non-volatile configuration memory invalid or not present

UB6#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB6#

UB6>enable

UB6#config t

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

UB6(config)#int s0/0

UB6(config-if)#ip address 192.168.91.107 255.255.255.248

UB6(config-if)#no shutdown

UB6(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

UB6(config-if)#end

UB6#

%SYS-5-CONFIG\_I: Configured from console by console

UB6#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

**UB7**

UB7>enable

UB7#config t

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

UB7(config)#int s0/0

UB7(config-if)#ip address 192.168.91.99 255.255.255.248

UB7(config-if)#no shutdown

UB7(config-if)#

%LINK-5-CHANGED: Interface Serial0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

UB7>enable

UB7#config t

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

UB7(config)#int s1/0

UB7(config-if)#ip address 192.168.91.139 255.255.255.248

UB7(config-if)#no shutdown

UB7(config-if)#

%LINK-5-CHANGED: Interface Serial1/0, changed state to up

UB7>enable

UB7#config t

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

UB7(config)#int s2/0

UB7(config-if)#ip address 192.168.91.163 255.255.255.248

UB7(config-if)#no shutdown

UB7(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

UB7>enable

UB7#config t

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

UB7(config)#int s3/0

UB7(config-if)#ip address 192.168.91.179 255.255.255.248

UB7(config-if)#no shutdown

UB7(config-if)#

%LINK-5-CHANGED: Interface Serial3/0, changed state to up

UB7>enable

UB7#config t

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

UB7(config)#int s4/0

UB7(config-if)#ip address 192.168.91.187 255.255.255.248

UB7(config-if)#no shutdown

UB7(config-if)#

%LINK-5-CHANGED: Interface Serial4/0, changed state to up

UB7(config-if)#end

UB7#

%SYS-5-CONFIG\_I: Configured from console by console

UB7#

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial4/0, changed state to up

UB7#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

UB7#

=====

+++++++

UB7(config)#ip route 0.0.0.0 0.0.0.0 S 0/0

UB7(config)#router rip

UB7(config-router)#version 2

UB7(config-router)#no auto summary

UB7(config-router)#network 192.168.91.96

UB7(config-router)#network 192.168.91.136

UB7(config-router)#network 192.168.91.160

UB7(config-router)#network 192.168.91.176

UB7(config-router)#network 192.168.91.184

UB7(config-router)#network 192.168.64.0

UB7(config-router)#passive-interface f 5/0

UB7(config-router)#end

# **Ping**

**UB1**

**Internal**

PC0 to PC1

C:\>ping 192.168.88.5

Pinging 192.168.88.5 with 32 bytes of data:

Reply from 192.168.88.5: bytes=32 time=1ms TTL=128

Reply from 192.168.88.5: bytes=32 time<1ms TTL=128

Reply from 192.168.88.5: bytes=32 time<1ms TTL=128

Reply from 192.168.88.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.88.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

**External**

PC0 to PC2

C:\>ping 192.168.90.3

Pinging 192.168.90.3 with 32 bytes of data:

Reply from 192.168.90.3: bytes=32 time=2ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Reply from 192.168.90.3: bytes=32 time=2ms TTL=126

Reply from 192.168.90.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.90.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC0 to PC4

C:\>ping 192.168.72.3

Pinging 192.168.72.3 with 32 bytes of data:

Reply from 192.168.72.3: bytes=32 time=2ms TTL=126

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=2ms TTL=126

Reply from 192.168.72.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.72.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC0 to PC6

C:\>ping 192.168.80.3

Pinging 192.168.80.3 with 32 bytes of data:

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.80.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 1ms, Average = 1ms

PC0 to PC8

C:\>ping 192.168.91.3

Pinging 192.168.91.3 with 32 bytes of data:

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Reply from 192.168.91.3: bytes=32 time=2ms TTL=126

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.91.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

PC0 to PC10

C:\>ping 192.168.64.3

Pinging 192.168.64.3 with 32 bytes of data:

Reply from 192.168.64.3: bytes=32 time=15ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.64.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 15ms, Average = 4ms

PC0 to Web Server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=1ms TTL=126

Reply from 192.168.0.3: bytes=32 time=2ms TTL=126

Reply from 192.168.0.3: bytes=32 time=1ms TTL=126

Reply from 192.168.0.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

**UB2**

**Internal**

PC2 to PC3

C:\>ping 192.168.90.5

Pinging 192.168.90.5 with 32 bytes of data:

Reply from 192.168.90.5: bytes=32 time=1ms TTL=128

Reply from 192.168.90.5: bytes=32 time<1ms TTL=128

Reply from 192.168.90.5: bytes=32 time<1ms TTL=128

Reply from 192.168.90.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.90.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

**External**

PC2 to PC0

Pinging 192.168.88.3 with 32 bytes of data:

Reply from 192.168.88.3: bytes=32 time=11ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=9ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.88.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 11ms, Average = 5ms

PC2 to PC4

C:\>ping 192.168.72.3

Pinging 192.168.72.3 with 32 bytes of data:

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=15ms TTL=126

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.72.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 15ms, Average = 6ms

PC2 to PC6

C:\>ping 192.168.80.3

Pinging 192.168.80.3 with 32 bytes of data:

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=8ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.80.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 4ms

PC2 to PC8

C:\>ping 192.168.91.3

Pinging 192.168.91.3 with 32 bytes of data:

Reply from 192.168.91.3: bytes=32 time=1ms TTL=125

Reply from 192.168.91.3: bytes=32 time=9ms TTL=125

Reply from 192.168.91.3: bytes=32 time=1ms TTL=125

Reply from 192.168.91.3: bytes=32 time=16ms TTL=125

Ping statistics for 192.168.91.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 16ms, Average = 6ms

PC2 to PC10

C:\>ping 192.168.64.3

Pinging 192.168.64.3 with 32 bytes of data:

Reply from 192.168.64.3: bytes=32 time=3ms TTL=125

Reply from 192.168.64.3: bytes=32 time=1ms TTL=125

Reply from 192.168.64.3: bytes=32 time=1ms TTL=125

Reply from 192.168.64.3: bytes=32 time=11ms TTL=125

Ping statistics for 192.168.64.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 11ms, Average = 4ms

PC2 to Web server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=18ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 18ms, Average = 6ms

**UB3**

**Internal**

PC4 to PC5

C:\>ping 192.168.72.5

Pinging 192.168.72.5 with 32 bytes of data:

Reply from 192.168.72.5: bytes=32 time<1ms TTL=128

Reply from 192.168.72.5: bytes=32 time<1ms TTL=128

Reply from 192.168.72.5: bytes=32 time<1ms TTL=128

Reply from 192.168.72.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.72.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

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

**External**

PC4 to PC0

C:\>ping 192.168.88.3

Pinging 192.168.88.3 with 32 bytes of data:

Reply from 192.168.88.3: bytes=32 time=2ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.88.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

PC4 to PC2

C:\>ping 192.168.90.3

Pinging 192.168.90.3 with 32 bytes of data:

Reply from 192.168.90.3: bytes=32 time=2ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.90.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

PC4 to PC6

C:\>ping 192.168.80.3

Pinging 192.168.80.3 with 32 bytes of data:

Reply from 192.168.80.3: bytes=32 time=2ms TTL=126

Reply from 192.168.80.3: bytes=32 time=2ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=7ms TTL=126

Ping statistics for 192.168.80.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 7ms, Average = 3ms

PC4 to PC8

C:\>ping 192.168.91.3

Pinging 192.168.91.3 with 32 bytes of data:

Reply from 192.168.91.3: bytes=32 time=11ms TTL=125

Reply from 192.168.91.3: bytes=32 time=2ms TTL=125

Reply from 192.168.91.3: bytes=32 time=2ms TTL=125

Reply from 192.168.91.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.91.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 11ms, Average = 4ms

PC4 to PC10

C:\>ping 192.168.64.0

Pinging 192.168.64.0 with 32 bytes of data:

Reply from 192.168.91.163: bytes=32 time=16ms TTL=254

Reply from 192.168.91.163: bytes=32 time=1ms TTL=254

Reply from 192.168.91.163: bytes=32 time=9ms TTL=254

Reply from 192.168.91.163: bytes=32 time=14ms TTL=254

Ping statistics for 192.168.64.0:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 16ms, Average = 10ms

PC4 to Web Server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=3ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=8ms TTL=125

Reply from 192.168.0.3: bytes=32 time=3ms TTL=125

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 8ms, Average = 4ms

**UB4**

**Internal**

PC6 to PC7

C:\>ping 192.168.80.5

Pinging 192.168.80.5 with 32 bytes of data:

Reply from 192.168.80.5: bytes=32 time<1ms TTL=128

Reply from 192.168.80.5: bytes=32 time<1ms TTL=128

Reply from 192.168.80.5: bytes=32 time<1ms TTL=128

Reply from 192.168.80.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.80.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

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

**External**

PC6 to PC0

C:\>ping 192.168.88.3

Pinging 192.168.88.3 with 32 bytes of data:

Reply from 192.168.88.3: bytes=32 time=10ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.88.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 10ms, Average = 3ms

PC4 to PC2

C:\>ping 192.168.90.3

Pinging 192.168.90.3 with 32 bytes of data:

Reply from 192.168.90.3: bytes=32 time=2ms TTL=126

Reply from 192.168.90.3: bytes=32 time=16ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.90.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 16ms, Average = 5ms

PC4 to PC4

C:\>ping 192.168.72.3

Pinging 192.168.72.3 with 32 bytes of data:

Reply from 192.168.72.3: bytes=32 time=12ms TTL=126

Reply from 192.168.72.3: bytes=32 time=2ms TTL=126

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=10ms TTL=126

Ping statistics for 192.168.72.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 12ms, Average = 6ms

PC4 to PC8

C:\>ping 192.168.91.3

Pinging 192.168.91.3 with 32 bytes of data:

Reply from 192.168.91.3: bytes=32 time=9ms TTL=126

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Reply from 192.168.91.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.91.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC4 to PC10

C:\>ping 192.168.64.3

Pinging 192.168.64.3 with 32 bytes of data:

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Reply from 192.168.64.3: bytes=32 time=9ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.64.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC4 to Web Server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=3ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 3ms, Average = 2ms

**UB5**

PC8 to PC9

C:\>ping 192.168.91.5

Pinging 192.168.91.5 with 32 bytes of data:

Reply from 192.168.91.5: bytes=32 time<1ms TTL=128

Reply from 192.168.91.5: bytes=32 time<1ms TTL=128

Reply from 192.168.91.5: bytes=32 time=6ms TTL=128

Reply from 192.168.91.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.91.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 6ms, Average = 1ms

PC8 to PC0

C:\>ping 192.168.88.3

Pinging 192.168.88.3 with 32 bytes of data:

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.88.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 1ms, Average = 1ms

PC8 to PC2

C:\>ping 192.168.90.0

Pinging 192.168.90.0 with 32 bytes of data:

Reply from 192.168.91.129: bytes=32 time=18ms TTL=254

Reply from 192.168.91.129: bytes=32 time=16ms TTL=254

Reply from 192.168.91.129: bytes=32 time=1ms TTL=254

Reply from 192.168.91.129: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.90.0:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 18ms, Average = 9ms

PC8 to PC4

C:\>ping 192/168.72.3

Ping request could not find host 192/168.72.3. Please check the name and try again.

C:\>ping 192.168.72.3

Pinging 192.168.72.3 with 32 bytes of data:

Reply from 192.168.72.3: bytes=32 time=3ms TTL=125

Reply from 192.168.72.3: bytes=32 time=10ms TTL=125

Reply from 192.168.72.3: bytes=32 time=3ms TTL=125

Reply from 192.168.72.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.72.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 10ms, Average = 4ms

PC8 to PC6

C:\>ping 192.168.80.3

Pinging 192.168.80.3 with 32 bytes of data:

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=2ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.80.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

PC8 to PC10

C:\>ping 192.168.64.3

Pinging 192.168.64.3 with 32 bytes of data:

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Reply from 192.168.64.3: bytes=32 time=2ms TTL=126

Reply from 192.168.64.3: bytes=32 time=21ms TTL=126

Reply from 192.168.64.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.64.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 21ms, Average = 6ms

PC8 to Web Server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=3ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 3ms, Average = 2ms

**UB7**

PC10 to PC11

C:\>ping 192.168.64.5

Pinging 192.168.64.5 with 32 bytes of data:

Reply from 192.168.64.5: bytes=32 time=8ms TTL=128

Reply from 192.168.64.5: bytes=32 time<1ms TTL=128

Reply from 192.168.64.5: bytes=32 time<1ms TTL=128

Reply from 192.168.64.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.64.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 8ms, Average = 2ms

PC10 to PC0

C:\>ping 192.168.88.3

Pinging 192.168.88.3 with 32 bytes of data:

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=1ms TTL=126

Reply from 192.168.88.3: bytes=32 time=9ms TTL=126

Reply from 192.168.88.3: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.88.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC10 to PC2

C:\>ping 192.168.90.3

Pinging 192.168.90.3 with 32 bytes of data:

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Reply from 192.168.90.3: bytes=32 time=2ms TTL=126

Reply from 192.168.90.3: bytes=32 time=3ms TTL=126

Reply from 192.168.90.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.90.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 3ms, Average = 1ms

PC10 to PC4

C:\>ping 192.168.72.3

Pinging 192.168.72.3 with 32 bytes of data:

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=9ms TTL=126

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Reply from 192.168.72.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.72.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 9ms, Average = 3ms

PC10 to PC6

C:\>ping 192.168.80.3

Pinging 192.168.80.3 with 32 bytes of data:

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Reply from 192.168.80.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.80.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 1ms, Average = 1ms

PC10 to PC8

C:\>ping 192.168.91.3

Pinging 192.168.91.3 with 32 bytes of data:

Reply from 192.168.91.3: bytes=32 time=11ms TTL=125

Reply from 192.168.91.3: bytes=32 time=1ms TTL=125

Reply from 192.168.91.3: bytes=32 time=2ms TTL=125

Reply from 192.168.91.3: bytes=32 time=1ms TTL=125

Ping statistics for 192.168.91.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

PC10 to Web Server

C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=3ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Reply from 192.168.0.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 3ms, Average = 2ms

Minimum = 1ms, Maximum = 11ms, Average = 3ms