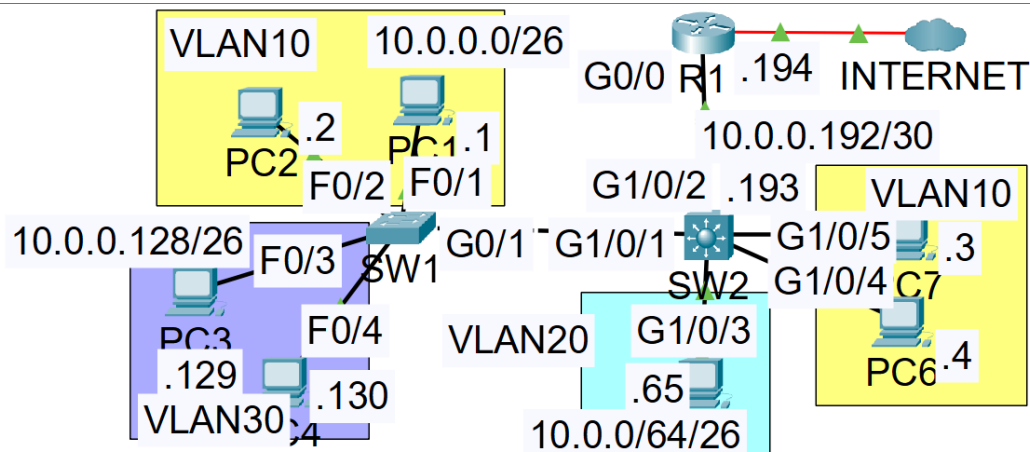


Layer 3 Switches:

Network Topology -



R1 CLI -

```
R1
Physical | Config | CLI | Attributes

R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/0
R1(config-if)#no interface g0/0.10
R1(config)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.10, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.10, changed state to down

R1(config)#no interface g0/0.20
R1(config)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.20, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.20, changed state to down

R1(config)#no interface g0/0.30
R1(config)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.30, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.30, changed state to down

R1(config)#do sh ip int br
Interface                IP-Address      OK? Method Status      Protocol
GigabitEthernet0/0       unassigned      YES NVRAM    up          up
GigabitEthernet0/1       unassigned      YES NVRAM    administratively down down
GigabitEthernet0/2       unassigned      YES NVRAM    administratively down down
GigabitEthernet0/0/0     1.1.1.2        YES manual   up          up
Vlan1                    unassigned      YES unset   administratively down down
R1(config)#default interface g0/0
Building configuration...

Interface GigabitEthernet0/0 set to default configuration
R1(config)#int g0/0
R1(config-if)#ip address 10.0.0.194 255.255.255.252
R1(config-if)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#
```

```

SW2>en
SW2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SW2(config)#int g1/0/2
SW2(config-if)#no switchport
SW2(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/2, changed state to up

SW2(config-if)#exit
SW2(config)#ip routing
SW2(config)#int g1/0/2
SW2(config-if)#default int g1/0/2
Building configuration...

Interface GigabitEthernet1/0/2 set to default configuration
SW2(config)#ip routing
SW2(config)#int g1/0/2
SW2(config-if)#no switchport
SW2(config-if)#ip address 10.0.0.193 255.255.255.252
SW2(config-if)#do sh ip int br

```

| Interface | IP-Address | OK? | Method | Status | Protocol |
|-----------------------|------------|-----|--------|--------|----------|
| GigabitEthernet1/0/1 | unassigned | YES | unset | up | up |
| GigabitEthernet1/0/2 | 10.0.0.193 | YES | manual | up | up |
| GigabitEthernet1/0/3 | unassigned | YES | unset | up | up |
| GigabitEthernet1/0/4 | unassigned | YES | unset | up | up |
| GigabitEthernet1/0/5 | unassigned | YES | unset | up | up |
| GigabitEthernet1/0/6 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/7 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/8 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/9 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/10 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/11 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/12 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/13 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/14 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/15 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/16 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/17 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/18 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/19 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/20 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/21 | unassigned | YES | unset | down | down |

```

SW2(config-if)#exit
SW2(config)#int vlan 10
SW2(config-if)#
%LINK-5-CHANGED: Interface Vlan10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan10, changed state to up

SW2(config-if)#ip address 10.0.0.62 255.255.255.192
SW2(config-if)#no shutdown
SW2(config-if)#int vlan 20

```

SW2 CLI (2) -

Physical |
 Config |
 CLI |
 Attributes

| | | | | | |
|-----------------------|------------|-----|-------|------|------|
| GigabitEthernet1/0/16 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/17 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/18 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/19 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/20 | unassigned | YES | unset | down | down |
| GigabitEthernet1/0/21 | unassigned | YES | unset | down | down |

```

SW2(config-if)#exit
SW2(config)#int vlan 10
SW2(config-if)#
%LINK-5-CHANGED: Interface Vlan10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan10, changed state to up

SW2(config-if)#ip address 10.0.0.62 255.255.255.192
SW2(config-if)#no shutdown
SW2(config-if)#int vlan 20
SW2(config-if)#
%LINK-5-CHANGED: Interface Vlan20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan20, changed state to up

SW2(config-if)#ip address 10.0.0.126 255.255.255.192
SW2(config-if)#no shutdown
SW2(config-if)#int vlan 30
SW2(config-if)#
%LINK-5-CHANGED: Interface Vlan30, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan30, changed state to up

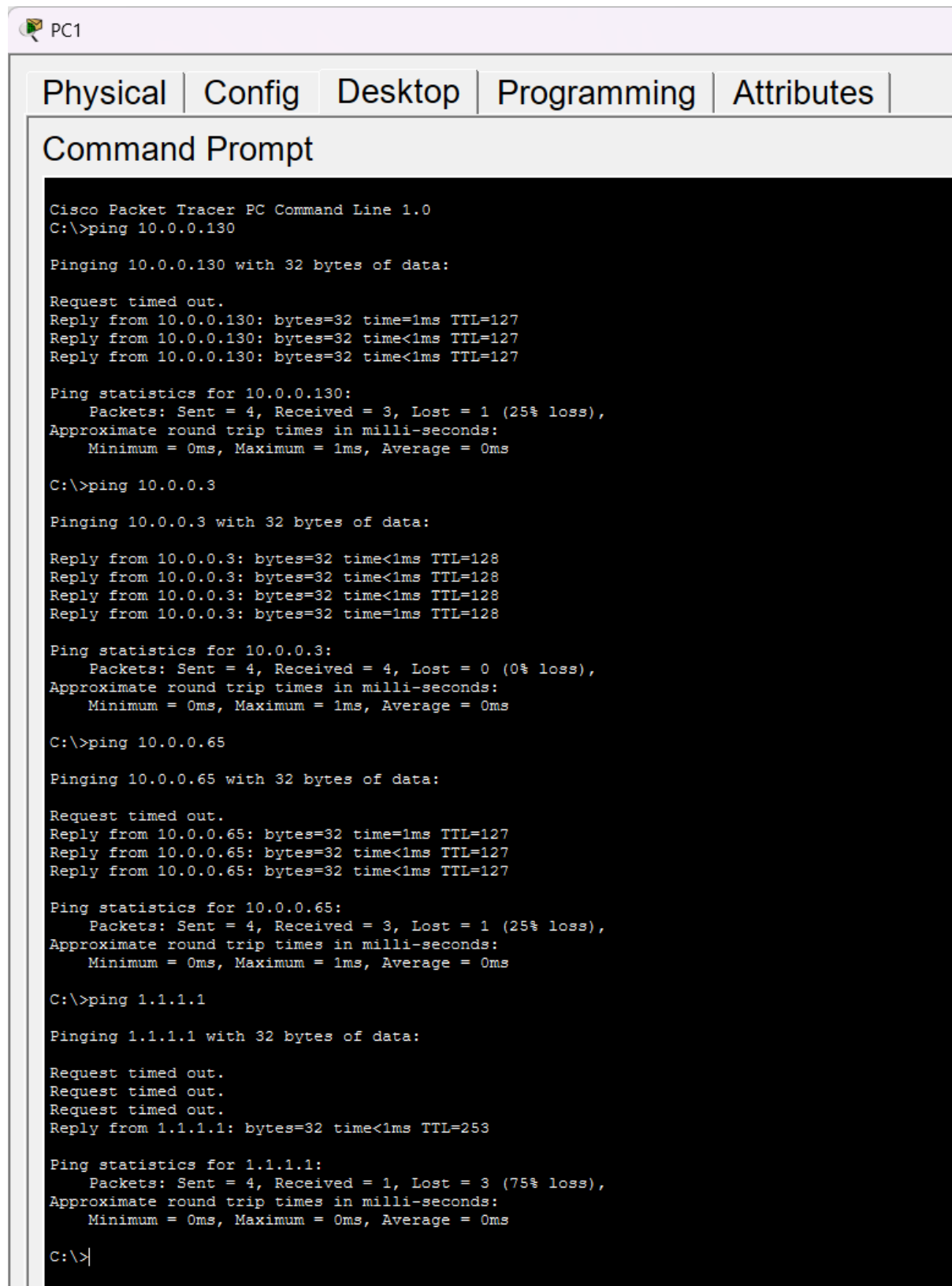
SW2(config-if)#ip address 10.0.0.190 255.255.255.192
SW2(config-if)#no shutdown
SW2(config-if)#exit
SW2(config)#ip routing
SW2(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.194
SW2(config)#do sh ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, 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 10.0.0.194 to network 0.0.0.0

    10.0.0.0/8 is variably subnetted, 8 subnets, 3 masks
C       10.0.0.0/26 is directly connected, Vlan10
L       10.0.0.62/32 is directly connected, Vlan10
C       10.0.0.64/26 is directly connected, Vlan20
L       10.0.0.126/32 is directly connected, Vlan20
C       10.0.0.128/26 is directly connected, Vlan30
L       10.0.0.190/32 is directly connected, Vlan30
C       10.0.0.192/30 is directly connected, GigabitEthernet1/0/2
L       10.0.0.193/32 is directly connected, GigabitEthernet1/0/2
S*     0.0.0.0/0 [1/0] via 10.0.0.194

SW2(config)#
    
```

PC1 command prompt –



The screenshot shows the PC1 Command Prompt window in Cisco Packet Tracer. The window has a title bar with a PC icon and the text 'PC1'. Below the title bar are five tabs: 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is selected, and the 'Command Prompt' window is open. The command prompt shows the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.130

Pinging 10.0.0.130 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.130: bytes=32 time=1ms TTL=127
Reply from 10.0.0.130: bytes=32 time<1ms TTL=127
Reply from 10.0.0.130: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.0.130:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 10.0.0.65

Pinging 10.0.0.65 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.65: bytes=32 time=1ms TTL=127
Reply from 10.0.0.65: bytes=32 time<1ms TTL=127
Reply from 10.0.0.65: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.0.65:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 1.1.1.1

Pinging 1.1.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Reply from 1.1.1.1: bytes=32 time<1ms TTL=253

Ping statistics for 1.1.1.1:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```