

# IERG4831

## Lab 1B Logbook

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SID: 1155126139

N1= 63, N2 = 19

VLAN63 network: 10.63.1.0/24

VLAN19 network: 10.19.1.0/24

VLAN #	NAME
63	63
19	19
163	63_COMM
263	63_ISO

### Task 1: Planning for Private VLAN

VLAN 63	PC
VLAN 163	PC210A, PC220A
VLAN 263	PC21A, PC22A

- Record the configurations on the switches SW\_DL2, SW\_AL21 and SW\_AL22.

SW\_DL2:

```
vlan 63,163,263
!
interface GigabitEthernet0/0
 switchport trunk encapsulation dot1q
 switchport mode trunk
 negotiation auto
!
interface GigabitEthernet0/1
 switchport trunk encapsulation dot1q
 switchport mode trunk
 negotiation auto
```

SW\_AL21:

```
vlan 63,163,263
!
interface GigabitEthernet0/0
 switchport trunk encapsulation dot1q
 switchport mode trunk
 negotiation auto
!
interface GigabitEthernet0/1
 switchport access vlan 263
 switchport mode access
 negotiation auto
```

```
!  
interface GigabitEthernet0/2  
  switchport access vlan 19  
  switchport mode access  
  negotiation auto  
!  
interface GigabitEthernet0/3  
  switchport access vlan 163  
  switchport mode access  
  negotiation auto
```

SW\_AL22:

```
vlan 63,163,263  
!  
interface GigabitEthernet0/0  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/1  
  switchport access vlan 263  
  switchport mode access  
  negotiation auto  
!  
interface GigabitEthernet0/2  
  switchport access vlan 19  
  switchport mode access  
  negotiation auto  
!  
interface GigabitEthernet0/3  
  switchport access vlan 163  
  switchport mode access  
  negotiation auto
```

## Task 2: Traffic Isolation by Private VLAN

- Verify your configuration by PING test. Record the result.

PC210A ping PC220A (10.63.1.4 ping 20.63.1.6)

```
cisco@PC210A:~$ ping -c 3 10.63.1.6  
PING 10.63.1.6 (10.63.1.6): 56 data bytes  
64 bytes from 10.63.1.6: seq=0 ttl=64 time=5.022 ms  
64 bytes from 10.63.1.6: seq=1 ttl=64 time=4.113 ms  
64 bytes from 10.63.1.6: seq=2 ttl=64 time=4.885 ms  
  
--- 10.63.1.6 ping statistics ---  
3 packets transmitted, 3 packets received, 0% packet loss  
round-trip min/avg/max = 4.113/4.673/5.022 ms
```

PC220A ping PC210A (10.63.1.6 ping 20.63.1.4)

```
cisco@PC220A:~$ ping -c 3 10.63.1.4  
PING 10.63.1.4 (10.63.1.4): 56 data bytes
```

```
64 bytes from 10.63.1.4: seq=0 ttl=64 time=12.366 ms
64 bytes from 10.63.1.4: seq=1 ttl=64 time=4.972 ms
64 bytes from 10.63.1.4: seq=2 ttl=64 time=5.754 ms

--- 10.63.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.972/7.697/12.366 ms
```

PC21A cannot ping PC22A (10.63.1.3 cannot ping 10.63.1.5)

```
cisco@PC21A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC21A (10.63.1.5 cannot ping 10.63.1.3)

```
cisco@PC22A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes

--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot talk to PC210A (10.63.1.3 cannot ping 10.63.1.4)

```
cisco@PC21A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot talk to PC220A (10.63.1.3 cannot ping 10.63.1.6)

```
cisco@PC21A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot talk to PC210A (10.63.1.5 cannot ping 10.63.1.4)

```
cisco@PC22A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot talk to PC220A (10.63.1.5 cannot ping 10.63.1.6)

```
cisco@PC22A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
```

```
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

- Record the switches configurations in this task.

SW\_AL21:

```
vlan 63
  private-vlan primary
  private-vlan association 163,263
!
vlan 163
  private-vlan community
!
vlan 263
  private-vlan isolated
!
!
interface GigabitEthernet0/0
  switchport trunk encapsulation dot1q
  switchport private-vlan mapping 63 163,263
  switchport mode trunk
  negotiation auto
!
interface GigabitEthernet0/1
  switchport access vlan 263
  switchport private-vlan host-association 63 263
  switchport mode private-vlan host
  negotiation auto
!
interface GigabitEthernet0/2
  switchport mode access
  negotiation auto
!
interface GigabitEthernet0/3
  switchport access vlan 163
  switchport private-vlan host-association 63 163
  switchport mode private-vlan host
  negotiation auto
```

SW\_AL22:

```
vlan 63
  private-vlan primary
  private-vlan association 163,263
!
vlan 163
  private-vlan community
!
vlan 263
  private-vlan isolated
!
!
interface GigabitEthernet0/0
  switchport trunk encapsulation dot1q
```

```
switchport private-vlan mapping 63 163,263
switchport mode trunk
negotiation auto
!
interface GigabitEthernet0/1
switchport access vlan 263
switchport private-vlan host-association 63 263
switchport mode private-vlan host
negotiation auto
!
interface GigabitEthernet0/2
switchport mode access
negotiation auto
!
interface GigabitEthernet0/3
switchport access vlan 163
switchport private-vlan host-association 63 163
switchport mode private-vlan host
negotiation auto
!
```

SW\_DL2:

```
vlan 63,163,263
!
!
interface GigabitEthernet0/0
switchport trunk encapsulation dot1q
switchport mode trunk
negotiation auto
!
interface GigabitEthernet0/1
switchport trunk encapsulation dot1q
switchport mode trunk
negotiation auto
!
```

### Task 3: Full Network Implementation of Private VLAN

- Verify your configuration by PING test. Record the result.

PC11A: (10.63.1.1)

PC11A cannot ping PC11B (10.63.1.1 cannot ping 10.19.1.1)

```
cisco@PC11A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC11A cannot ping PC12A (10.63.1.1 cannot ping 10.63.1.2)

```
cisco@PC11A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC12B (10.63.1.1 cannot ping 10.19.1.2)

```
cisco@PC11A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC11A cannot ping PC210A (10.63.1.1 cannot ping 10.63.1.4)

```
cisco@PC11A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC21A (10.63.1.1 cannot ping 10.63.1.3)

```
cisco@PC11A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC21B (10.63.1.1 cannot ping 10.19.1.3)

```
cisco@PC11A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```

PC11A cannot ping PC22A (10.63.1.1 cannot ping 10.63.1.5)

```
cisco@PC11A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC22B (10.63.1.1 cannot ping 10.19.1.4)

```
cisco@PC11A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
ping: sendto: Network is unreachable
```

PC11A cannot ping PC220A (10.63.1.1 cannot ping 10.63.1.6)

```
cisco@PC11A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A: (10.63.1.2)

PC12A cannot ping PC11A (10.63.1.2 cannot ping 10.63.1.1)

```
cisco@PC12A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC11B (10.63.1.2 cannot ping 10.19.1.1)

```
cisco@PC12A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC12A cannot ping PC12B (10.63.1.2 cannot ping 10.19.1.2)

```
cisco@PC12A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC12A cannot ping PC210A (10.63.1.2 cannot ping 10.63.1.4)

```
cisco@PC12A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC21A (10.63.1.2 cannot ping 10.63.1.3)

```
cisco@PC12A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC21B (10.63.1.2 cannot ping 10.19.1.3)

```
cisco@PC12A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```

PC12A cannot ping PC22A (10.63.1.2 cannot ping 10.63.1.5)

```
cisco@PC12A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC22B (10.63.1.2 cannot ping 10.19.1.4)

```
cisco@PC12A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
```

```
ping: sendto: Network is unreachable
```

PC12A cannot ping PC220A (10.63.1.2 cannot ping 10.63.1.6)

```
cisco@PC12A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A: (10.63.1.3)

PC21A cannot ping PC11A (10.63.1.3 cannot ping 10.63.1.1)

```
cisco@PC21A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC11B (10.63.1.3 cannot ping 10.19.1.1)

```
cisco@PC21A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC21A cannot ping PC12A (10.63.1.3 cannot ping 10.63.1.2)

```
cisco@PC21A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC12B (10.63.1.3 cannot ping 10.19.1.2)

```
cisco@PC21A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC21A cannot ping PC210A (10.63.1.3 cannot ping 10.63.1.4)

```
cisco@PC21A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC21B (10.63.1.3 cannot ping 10.19.1.3)

```
cisco@PC21A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```



PC21A cannot ping PC22A (10.63.1.3 cannot ping 10.63.1.5)

```
cisco@PC21A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC22B (10.63.1.3 cannot ping 10.19.1.4)

```
cisco@PC21A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
ping: sendto: Network is unreachable
```

PC21A cannot ping PC220A (10.63.1.3 cannot ping 10.63.1.6)

```
cisco@PC21A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A: (10.63.1.5)

PC22A cannot ping PC11A (10.63.1.5 cannot ping 10.63.1.1)

```
cisco@PC22A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC11B (10.63.1.5 cannot ping 10.19.1.1)

```
cisco@PC22A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC22A cannot ping PC12A (10.63.1.5 cannot ping 10.63.1.2)

```
cisco@PC22A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC12B (10.63.1.5 cannot ping 10.19.1.2)

```
cisco@PC22A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC22A cannot ping PC210A (10.63.1.5 cannot ping 10.63.1.4)

```
cisco@PC22A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC21A (10.63.1.5 cannot ping 10.63.1.3)

```
cisco@PC22A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC21B (10.63.1.5 cannot ping 10.19.1.3)

```
cisco@PC22A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```

PC22A cannot ping PC22B (10.63.1.5 cannot ping 10.19.1.4)

```
cisco@PC22A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
ping: sendto: Network is unreachable
```

PC22A cannot ping PC220A (10.63.1.5 cannot ping 10.63.1.6)

```
cisco@PC22A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A: (10.63.1.4)

PC210A cannot ping PC11A (10.63.1.4 cannot ping 10.63.1.1)

```
cisco@PC210A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A cannot ping PC11B (10.63.1.4 cannot ping 10.19.1.1)

```
cisco@PC210A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC210A cannot ping PC12A (10.63.1.4 cannot ping 10.63.1.2)

```
cisco@PC210A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
```

```
^C
--- 10.63.1.2 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A cannot ping PC12B (10.63.1.4 cannot ping 10.19.1.2)

```
cisco@PC210A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC210A cannot ping PC21A (10.63.1.4 cannot ping 10.63.1.3)

```
cisco@PC210A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A cannot ping PC21B (10.63.1.4 cannot ping 10.19.1.3)

```
cisco@PC210A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```

PC210A cannot ping PC22A (10.63.1.4 cannot ping 10.63.1.5)

```
cisco@PC210A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A cannot ping PC22B (10.63.1.4 cannot ping 10.19.1.4)

```
cisco@PC210A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
ping: sendto: Network is unreachable
```

PC210A can ping PC220A (10.63.1.4 can ping 10.63.1.6)

```
cisco@PC210A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
64 bytes from 10.63.1.6: seq=0 ttl=64 time=5.425 ms
64 bytes from 10.63.1.6: seq=1 ttl=64 time=5.142 ms
64 bytes from 10.63.1.6: seq=2 ttl=64 time=5.073 ms

--- 10.63.1.6 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.073/5.213/5.425 ms
```

PC220A: (10.63.1.6)

PC220A cannot ping PC11A (10.63.1.6 cannot ping 10.63.1.1)

```
cisco@PC220A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC220A cannot ping PC11B (10.63.1.6 cannot ping 10.19.1.1)

```
cisco@PC220A:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
ping: sendto: Network is unreachable
```

PC220A cannot ping PC12A (10.63.1.6 cannot ping 10.63.1.2)

```
cisco@PC220A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC220A cannot ping PC12B (10.63.1.6 cannot ping 10.19.1.2)

```
cisco@PC220A:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
ping: sendto: Network is unreachable
```

PC220A can ping PC210A (10.63.1.6 can ping 10.63.1.4)

```
cisco@PC220A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
64 bytes from 10.63.1.4: seq=0 ttl=64 time=6.946 ms
64 bytes from 10.63.1.4: seq=1 ttl=64 time=5.173 ms
64 bytes from 10.63.1.4: seq=2 ttl=64 time=6.052 ms

--- 10.63.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.173/6.057/6.946 ms
```

PC220A cannot ping PC21A (10.63.1.6 cannot ping 10.63.1.3)

```
cisco@PC220A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC220A cannot ping PC21B (10.63.1.6 cannot ping 10.19.1.3)

```
cisco@PC220A:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
ping: sendto: Network is unreachable
```

PC220A cannot ping PC22A (10.63.1.6 cannot ping 10.63.1.5)

```
cisco@PC220A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC220A cannot ping PC22B (10.63.1.6 cannot ping 10.19.1.4)

```
cisco@PC220A:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
ping: sendto: Network is unreachable
```

PC11B: (10.19.1.1)

PC11B can ping PC12B: (10.19.1.1 can ping 10.19.1.2)

```
cisco@PC11B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=10.787 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=8.729 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=5.694 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.694/8.403/10.787 ms
```

PC11B can ping PC21B: (10.19.1.1 can ping 10.19.1.3)

```
cisco@PC11B:~$ ping 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=24.436 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=20.061 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=10.248 ms
^C
--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 10.248/18.248/24.436 ms
```

PC11B can ping PC22B: (10.19.1.1 can ping 10.19.1.4)

```
cisco@PC11B:~$ ping 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=20.135 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=8.858 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=8.191 ms
^C
--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 8.191/12.394/20.135 ms
```

PC12B: (10.19.1.2)

PC12B can ping PC11B: (10.19.1.2 can ping 10.19.1.1)

```
cisco@PC12B:~$ ping -c 3 10.19.1.1
```

```
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=7.521 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=5.418 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=5.489 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.418/6.142/7.521 ms
```

PC12B can ping PC21B: (10.19.1.2 can ping 10.19.1.3)

```
cisco@PC12B:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=17.967 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=11.389 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=9.603 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 9.603/12.986/17.967 ms
```

PC12B can ping PC22B: (10.19.1.2 can ping 10.19.1.4)

```
cisco@PC12B:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=22.748 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=8.973 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=6.815 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.815/12.845/22.748 ms
```

PC21B: (10.19.1.3)

PC21B can ping PC11B: (10.19.1.3 can ping 10.19.1.1)

```
cisco@PC21B:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=10.932 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=13.417 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=10.978 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 10.932/11.775/13.417 ms
```

PC21B can ping PC12B: (10.19.1.3 can ping 10.19.1.2)

```
cisco@PC21B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=16.431 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=10.910 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=7.955 ms
```

```
--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.955/11.765/16.431 ms
```

PC21B can ping PC22B: (10.19.1.3 can ping 10.19.1.4)

```
cisco@PC21B:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=13.789 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=5.221 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=11.721 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.221/10.243/13.789 ms
```

PC22B: (10.19.1.4)

PC22B can ping PC11B: (10.19.1.4 can ping 10.19.1.1)

```
cisco@PC22B:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=11.022 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=11.628 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=13.261 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 11.022/11.970/13.261 ms
```

PC22B can ping PC12B: (10.19.1.4 can ping 10.19.1.2)

```
cisco@PC22B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=9.501 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=10.692 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=9.681 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 9.501/9.958/10.692 ms
```

PC22B can ping PC21B: (10.19.1.4 can ping 10.19.1.3)

```
cisco@PC22B:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=5.992 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=6.392 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=7.463 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.992/6.615/7.463 ms
```

- Record the switches configurations in this task.

SW\_AL11:

```
vlan 19
!
vlan 63
  private-vlan primary
  private-vlan association 263
!
vlan 263
  private-vlan isolated
!
!
interface GigabitEthernet0/0
  switchport trunk encapsulation dot1q
  switchport private-vlan mapping 63 263
  switchport mode trunk
  negotiation auto
!
interface GigabitEthernet0/1
  switchport access vlan 263
  switchport private-vlan host-association 63 263
  switchport mode private-vlan host
  negotiation auto
!
interface GigabitEthernet0/2
  switchport access vlan 19
  switchport mode access
  negotiation auto
!
```

SW\_AL12:

```
!
vlan 19
!
vlan 63
  private-vlan primary
  private-vlan association 263
!
vlan 263
  private-vlan isolated
!
!
interface GigabitEthernet0/0
  switchport trunk encapsulation dot1q
  switchport private-vlan mapping 63 263
  switchport mode trunk
  negotiation auto
!
interface GigabitEthernet0/1
  switchport access vlan 263
  switchport private-vlan host-association 63 263
  switchport mode private-vlan host
  negotiation auto
```



```
!  
interface GigabitEthernet0/2  
  switchport access vlan 19  
  switchport mode access  
  negotiation auto  
!
```

SW\_AL21:

```
!  
vlan 19  
!  
vlan 63  
  private-vlan primary  
  private-vlan association 163,263  
!  
vlan 163  
  private-vlan community  
!  
vlan 263  
  private-vlan isolated  
!  
!  
interface GigabitEthernet0/0  
  switchport trunk encapsulation dot1q  
  switchport private-vlan mapping 63 163,263  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/1  
  switchport access vlan 263  
  switchport private-vlan host-association 63 263  
  switchport mode private-vlan host  
  negotiation auto  
!  
interface GigabitEthernet0/2  
  switchport access vlan 19  
  switchport mode access  
  negotiation auto  
!  
interface GigabitEthernet0/3  
  switchport access vlan 163  
  switchport private-vlan host-association 63 163  
  switchport mode private-vlan host  
  negotiation auto  
!
```

SW\_AL22:

```
!  
vlan 19  
!  
vlan 63  
  private-vlan primary  
  private-vlan association 163,263
```

```
!  
vlan 163  
    private-vlan community  
!  
vlan 263  
    private-vlan isolated  
!  
!  
interface GigabitEthernet0/0  
    switchport trunk encapsulation dot1q  
    switchport private-vlan mapping 63 163,263  
    switchport mode trunk  
    negotiation auto  
!  
interface GigabitEthernet0/1  
    switchport access vlan 263  
    switchport private-vlan host-association 63 263  
    switchport mode private-vlan host  
    negotiation auto  
!  
interface GigabitEthernet0/2  
    switchport access vlan 19  
    switchport mode access  
    negotiation auto  
!  
interface GigabitEthernet0/3  
    switchport access vlan 163  
    switchport private-vlan host-association 63 163  
    switchport mode private-vlan host  
    negotiation auto  
!
```

SW\_DL1:

```
!  
vlan 19,63,263  
!  
!  
interface GigabitEthernet0/0  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
    negotiation auto  
!  
interface GigabitEthernet0/1  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
    negotiation auto  
!  
interface GigabitEthernet0/2  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
    negotiation auto  
!
```

SW\_DL2:

```
!  
vlan 19,63,163,263  
!  
!  
interface GigabitEthernet0/0  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/1  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/2  
  negotiation auto  
!
```

SW\_C:

```
!  
vlan 19,63,163,263  
!  
!  
interface GigabitEthernet0/0  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/1  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!
```

#### Task 4: Promiscuous Port

- Use PING test to confirm the connectivity. Record the result.

PC11A: (10.63.1.1)

PC11A cannot ping PC12A: (10.63.1.1 cannot ping 10.63.1.2)

```
cisco@PC11A:~$ ping -c 3 10.63.1.2  
PING 10.63.1.2 (10.63.1.2): 56 data bytes  
^C  
--- 10.63.1.2 ping statistics ---  
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC21A: (10.63.1.1 cannot ping 10.63.1.3)

```
cisco@PC11A:~$ ping -c 3 10.63.1.3  
PING 10.63.1.3 (10.63.1.3): 56 data bytes  
^C  
--- 10.63.1.3 ping statistics ---
```

```
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC22A: (10.63.1.1 cannot ping 10.63.1.5)

```
cisco@PC11A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A can ping Server: (10.63.1.1 cannot ping 10.63.1.222)

```
cisco@PC11A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=4.451 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=7.714 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=14.571 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.451/8.912/14.571 ms
```

PC11A cannot ping PC210A: (10.63.1.1 cannot ping 10.63.1.4)

```
cisco@PC11A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC11A cannot ping PC220A: (10.63.1.1 cannot ping 10.63.1.6)

```
cisco@PC11A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A: (10.63.1.2):

PC12A cannot ping PC11A: (10.63.1.2 cannot ping 10.63.1.1)

```
cisco@PC12A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC21A: (10.63.1.2 cannot ping 10.63.1.3)

```
cisco@PC12A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
```

```
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC22A: (10.63.1.2 cannot ping 10.63.1.5)

```
cisco@PC12A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A can ping Server: (10.63.1.2 cannot ping 10.63.1.222)

```
cisco@PC12A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=15.323 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=6.669 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=7.119 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.669/9.703/15.323 ms
```

PC12A cannot ping PC210A: (10.63.1.2 cannot ping 10.63.1.4)

```
cisco@PC12A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC12A cannot ping PC220A: (10.63.1.2 cannot ping 10.63.1.6)

```
cisco@PC12A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A: (10.63.1.3)

PC21A cannot ping PC11A: (10.63.1.3 cannot ping 10.63.1.1)

```
cisco@PC21A:~$ ping 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC12A: (10.63.1.3 cannot ping 10.63.1.2)

```
cisco@PC21A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
```

```
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC22A: (10.63.1.3 cannot ping 10.63.1.5)

```
cisco@PC21A:~$ ping -c 3 10.63.1.5
PING 10.63.1.5 (10.63.1.5): 56 data bytes
^C
--- 10.63.1.5 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A can ping Server: (10.63.1.3 cannot ping 10.63.1.222)

```
cisco@PC21A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=7.103 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=7.368 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=8.103 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.103/7.524/8.103 ms
```

PC21A cannot ping PC210A: (10.63.1.3 cannot ping 10.63.1.4)

```
cisco@PC21A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC21A cannot ping PC220A: (10.63.1.3 cannot ping 10.63.1.6)

```
cisco@PC21A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A: (10.63.1.4)

PC22A cannot ping PC11A: (10.63.1.5 cannot ping 10.63.1.1)

```
cisco@PC22A:~$ ping -c 3 10.63.1.1
PING 10.63.1.1 (10.63.1.1): 56 data bytes
^C
--- 10.63.1.1 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC12A: (10.63.1.5 cannot ping 10.63.1.2)

```
cisco@PC22A:~$ ping -c 3 10.63.1.2
PING 10.63.1.2 (10.63.1.2): 56 data bytes
^C
--- 10.63.1.2 ping statistics ---
```

```
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC21A: (10.63.1.5 cannot ping 10.63.1.3)

```
cisco@PC22A:~$ ping -c 3 10.63.1.3
PING 10.63.1.3 (10.63.1.3): 56 data bytes
^C
--- 10.63.1.3 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A can ping Server: (10.63.1.5 cannot ping 10.63.1.222)

```
cisco@PC22A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=17.117 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=7.760 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=7.876 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.760/10.917/17.117 ms
```

PC22A cannot ping PC210A: (10.63.1.5 cannot ping 10.63.1.4)

```
cisco@PC22A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
^C
--- 10.63.1.4 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC22A cannot ping PC220A: (10.63.1.5 cannot ping 10.63.1.6)

```
cisco@PC22A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
^C
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 0 packets received, 100% packet loss
```

PC210A: (10.63.1.4)

PC210A can ping PC220A: (10.63.1.4 can ping 10.63.1.6)

```
cisco@PC210A:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
64 bytes from 10.63.1.6: seq=0 ttl=64 time=5.131 ms
64 bytes from 10.63.1.6: seq=1 ttl=64 time=5.239 ms
64 bytes from 10.63.1.6: seq=2 ttl=64 time=6.095 ms

--- 10.63.1.6 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.131/5.488/6.095 ms
```

PC210A can ping Server: (10.63.1.4 can ping 10.63.1.222)

```
cisco@PC210A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=9.226 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=6.198 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=6.456 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.198/7.293/9.226 ms
```

PC220A: (10.63.1.6)

PC220A can ping PC210A: (10.63.1.6 can ping 10.63.1.4)

```
cisco@PC220A:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
64 bytes from 10.63.1.4: seq=0 ttl=64 time=4.802 ms
64 bytes from 10.63.1.4: seq=1 ttl=64 time=4.959 ms
64 bytes from 10.63.1.4: seq=2 ttl=64 time=5.242 ms

--- 10.63.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.802/5.001/5.242 ms
```

PC220A can ping Server: (10.63.1.6 can ping 10.63.1.222)

```
cisco@PC220A:~$ ping -c 3 10.63.1.222
PING 10.63.1.222 (10.63.1.222): 56 data bytes
64 bytes from 10.63.1.222: seq=0 ttl=64 time=6.758 ms
64 bytes from 10.63.1.222: seq=1 ttl=64 time=9.616 ms
64 bytes from 10.63.1.222: seq=2 ttl=64 time=11.074 ms

--- 10.63.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.758/9.149/11.074 ms
```

Server: (10.63.1.222)

Server can ping PC210A: (10.63.1.222 can ping 10.63.1.4)

```
cisco@Server:~$ ping -c 3 10.63.1.4
PING 10.63.1.4 (10.63.1.4): 56 data bytes
64 bytes from 10.63.1.4: seq=0 ttl=64 time=7.297 ms
64 bytes from 10.63.1.4: seq=1 ttl=64 time=7.531 ms
64 bytes from 10.63.1.4: seq=2 ttl=64 time=6.833 ms

--- 10.63.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.833/7.220/7.531 ms
```

Server can ping PC220A: (10.63.1.222 can ping 10.63.1.6)

```
cisco@Server:~$ ping -c 3 10.63.1.6
PING 10.63.1.6 (10.63.1.6): 56 data bytes
64 bytes from 10.63.1.6: seq=0 ttl=64 time=16.638 ms
```



```
64 bytes from 10.63.1.6: seq=1 ttl=64 time=7.724 ms
64 bytes from 10.63.1.6: seq=2 ttl=64 time=20.438 ms
```

```
--- 10.63.1.6 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.724/14.933/20.438 ms
```

PC11B: (10.19.1.1)

PC11B can ping PC12B: (10.19.1.1 can ping 10.19.1.2)

```
cisco@PC11B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=4.449 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=4.513 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=6.022 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.449/4.994/6.022 ms
```

PC11B can ping PC21B: (10.19.1.1 can ping 10.19.1.3)

```
cisco@PC11B:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=8.373 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=9.044 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=9.134 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 8.373/8.850/9.134 ms
```

PC11B can ping PC22B: (10.19.1.1 can ping 10.19.1.4)

```
cisco@PC11B:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=11.589 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=9.111 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=7.181 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.181/9.293/11.589 ms
```

PC11B can ping Server: (10.19.1.1 can ping 10.19.1.222)

```
cisco@PC11B:~$ ping -c 3 10.19.1.222
PING 10.19.1.222 (10.19.1.222): 56 data bytes
64 bytes from 10.19.1.222: seq=0 ttl=64 time=4.448 ms
64 bytes from 10.19.1.222: seq=1 ttl=64 time=4.736 ms
64 bytes from 10.19.1.222: seq=2 ttl=64 time=5.071 ms

--- 10.19.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
```

```
round-trip min/avg/max = 4.448/4.751/5.071 ms
```

PC12B: (10.19.1.2)

PC12B can ping PC11B: (10.19.1.2 can ping 10.19.1.1)

```
cisco@PC12B:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=9.442 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=7.474 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=5.159 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.159/7.358/9.442 ms
```

PC12B can ping PC21B: (10.19.1.2 can ping 10.19.1.3)

```
cisco@PC12B:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=9.527 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=9.859 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=16.672 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 9.527/12.019/16.672 ms
```

PC12B can ping PC22B: (10.19.1.2 can ping 10.19.1.4)

```
cisco@PC12B:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=27.463 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=7.914 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=12.248 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.914/15.875/27.463 ms
```

PC12B can ping Server: (10.19.1.2 can ping 10.19.1.222)

```
cisco@PC12B:~$ ping -c 3 10.19.1.222
PING 10.19.1.222 (10.19.1.222): 56 data bytes
64 bytes from 10.19.1.222: seq=0 ttl=64 time=12.597 ms
64 bytes from 10.19.1.222: seq=1 ttl=64 time=6.617 ms
64 bytes from 10.19.1.222: seq=2 ttl=64 time=11.990 ms

--- 10.19.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.617/10.401/12.597 ms
```

PC21B: (10.19.1.3)

PC21B can ping PC11B: (10.19.1.3 can ping 10.19.1.1)

```
cisco@PC21B:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=8.513 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=8.999 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=9.792 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 8.513/9.101/9.792 ms
```

PC21B can ping PC12B: (10.19.1.3 can ping 10.19.1.2)

```
cisco@PC21B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=9.210 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=9.890 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=10.316 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 9.210/9.805/10.316 ms
```

PC21B can ping PC22B: (10.19.1.3 can ping 10.19.1.4)

```
cisco@PC21B:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=4.851 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=5.059 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=5.267 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.851/5.059/5.267 ms
```

PC21B can ping Server: (10.19.1.3 can ping 10.19.1.222)

```
cisco@PC21B:~$ ping -c 3 10.19.1.222
PING 10.19.1.222 (10.19.1.222): 56 data bytes
64 bytes from 10.19.1.222: seq=0 ttl=64 time=13.907 ms
64 bytes from 10.19.1.222: seq=1 ttl=64 time=7.261 ms
64 bytes from 10.19.1.222: seq=2 ttl=64 time=7.370 ms

--- 10.19.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.261/9.512/13.907 ms
```

PC22B: (10.19.1.4)

PC22B can ping PC11B: (10.19.1.4 can ping 10.19.1.1)

```
cisco@PC22B:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=9.964 ms
```

```
64 bytes from 10.19.1.1: seq=1 ttl=64 time=8.964 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=7.919 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.919/8.949/9.964 ms
```

PC22B can ping PC12B: (10.19.1.4 can ping 10.19.1.2)

```
cisco@PC22B:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=8.504 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=7.263 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=9.087 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 7.263/8.284/9.087 ms
```

PC22B can ping PC21B: (10.19.1.4 can ping 10.19.1.3)

```
cisco@PC22B:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=6.170 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=4.462 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=4.882 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 4.462/5.171/6.170 ms
```

PC22B can ping Server: (10.19.1.4 can ping 10.19.1.222)

```
cisco@PC22B:~$ ping -c 3 10.19.1.222
PING 10.19.1.222 (10.19.1.222): 56 data bytes
64 bytes from 10.19.1.222: seq=0 ttl=64 time=16.072 ms
64 bytes from 10.19.1.222: seq=1 ttl=64 time=6.088 ms
64 bytes from 10.19.1.222: seq=2 ttl=64 time=20.984 ms

--- 10.19.1.222 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.088/14.381/20.984 ms
```

Server: (10.19.1.222)

Server can ping PC11B: (10.19.1.222 can ping 10.19.1.1)

```
cisco@Server:~$ ping -c 3 10.19.1.1
PING 10.19.1.1 (10.19.1.1): 56 data bytes
64 bytes from 10.19.1.1: seq=0 ttl=64 time=5.439 ms
64 bytes from 10.19.1.1: seq=1 ttl=64 time=5.648 ms
64 bytes from 10.19.1.1: seq=2 ttl=64 time=6.213 ms

--- 10.19.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
```

```
round-trip min/avg/max = 5.439/5.766/6.213 ms
```

Server can ping PC12B: (10.19.1.222 can ping 10.19.1.2)

```
cisco@Server:~$ ping -c 3 10.19.1.2
PING 10.19.1.2 (10.19.1.2): 56 data bytes
64 bytes from 10.19.1.2: seq=0 ttl=64 time=5.388 ms
64 bytes from 10.19.1.2: seq=1 ttl=64 time=5.188 ms
64 bytes from 10.19.1.2: seq=2 ttl=64 time=10.672 ms

--- 10.19.1.2 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.188/7.082/10.672 ms
```

Server can ping PC21B: (10.19.1.222 can ping 10.19.1.3)

```
cisco@Server:~$ ping -c 3 10.19.1.3
PING 10.19.1.3 (10.19.1.3): 56 data bytes
64 bytes from 10.19.1.3: seq=0 ttl=64 time=8.388 ms
64 bytes from 10.19.1.3: seq=1 ttl=64 time=6.603 ms
64 bytes from 10.19.1.3: seq=2 ttl=64 time=6.696 ms

--- 10.19.1.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 6.603/7.229/8.388 ms
```

Server can ping PC22B: (10.19.1.222 can ping 10.19.1.4)

```
cisco@Server:~$ ping -c 3 10.19.1.4
PING 10.19.1.4 (10.19.1.4): 56 data bytes
64 bytes from 10.19.1.4: seq=0 ttl=64 time=6.129 ms
64 bytes from 10.19.1.4: seq=1 ttl=64 time=5.438 ms
64 bytes from 10.19.1.4: seq=2 ttl=64 time=6.477 ms

--- 10.19.1.4 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 5.438/6.014/6.477 ms
```

- Record the switch and host configurations in this task.

SW\_C:

```
!
vlan 19
!
vlan 63
  private-vlan primary
  private-vlan association 163,263
!
vlan 163
  private-vlan community
!
vlan 263
  private-vlan isolated
```

```
!  
!  
interface GigabitEthernet0/0  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/1  
  switchport trunk encapsulation dot1q  
  switchport mode trunk  
  negotiation auto  
!  
interface GigabitEthernet0/2  
  switchport trunk encapsulation dot1q  
  switchport private-vlan mapping 63 163,263  
  switchport mode private-vlan promiscuous  
  negotiation auto  
!  
interface GigabitEthernet0/3  
  switchport access vlan 19  
  switchport mode access  
  negotiation auto  
!
```

Server:

```
# this is a shell script which will be sourced at boot  
hostname Server  
# configurable user account  
USERNAME=cisco  
PASSWORD=cisco  
# no password for tc user by default  
TC_PASSWORD=  
vconfig add eth0 63  
ifconfig eth0 10.63.1.222 netmask 255.255.255.0 broadcast 10.63.1.255  
vconfig add eth1 19  
ifconfig eth1 10.19.1.222 netmask 255.255.255.0 broadcast 10.19.1.255
```