



GOVT. GRADUATE COLLEGE
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TOPIC : Wan network

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WAN

DEFINATION :

WAN stands for wide area network . It is a computer network that covers a large geographical area, such as a city country or even multiple countries. Wans are used to connect multiple local area network lans to communicate with each other.

Example

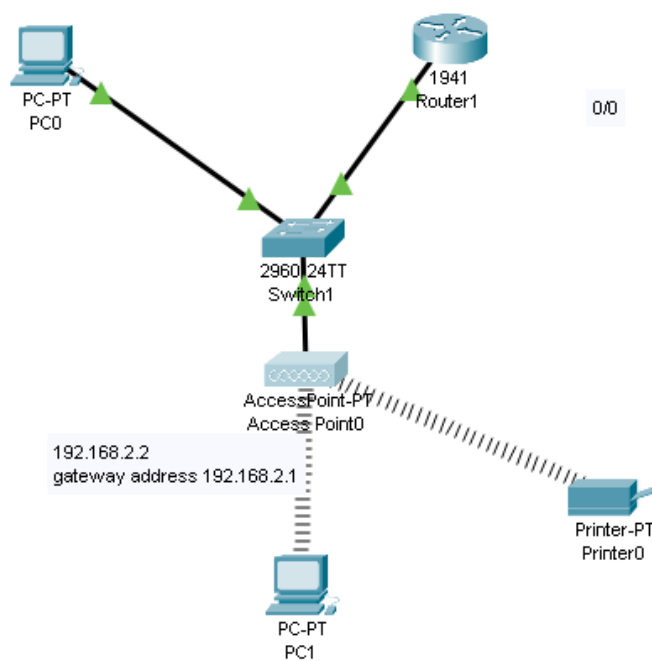
Internet service provider (isp)

Corporate networks spanning multiple offices.

Government networks connecting different agencies.

TASK 1

STRUCTURE:



ARRANGMENTS :

We will take one pc one switch and one router.

We will also take an access point ,printer and comuter.

Then we will connect a switch with pc and router and switch is

Connected with access point and access point also connecte wireless

With computer and printer.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will give a gate way to the router.

Then we set the password in access point in port 1.

Then we wirelessly connected a computer with access point and

```
C:\>ping 192.168.2.3

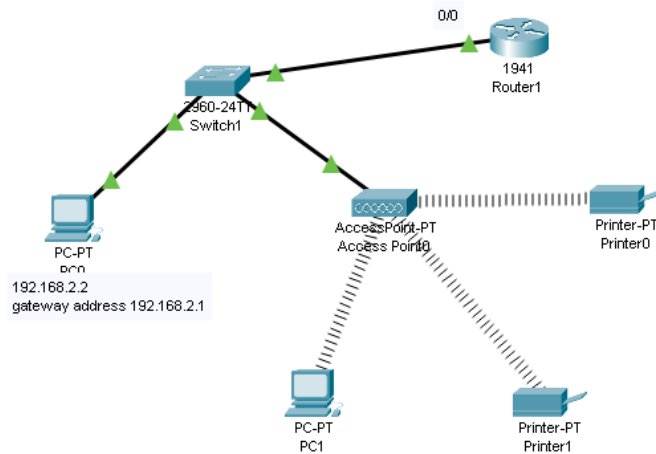
Pinging 192.168.2.3 with 32 bytes of data:

Reply from 192.168.2.3: bytes=32 time=34ms TTL=128
Reply from 192.168.2.3: bytes=32 time=24ms TTL=128
Reply from 192.168.2.3: bytes=32 time=17ms TTL=128
Reply from 192.168.2.3: bytes=32 time=22ms TTL=128

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    approximate round trip times in milli-seconds:
        Minimum = 17ms, Maximum = 34ms, Average = 24ms
```

Task 2

Structure:



ARRANGMENTS :

We will take one pc one switch and one router.

We will also take an access point , 2printer and comuter.

Then we will connect a switch with pc and router and switch is

Connected with access point and access point also connecte wireless

With computer and printer.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will give a gate way to the router.

Then we set the password in access point in port 1.

Then we wirelessly connected a computer with access point and 2 Printers.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.3

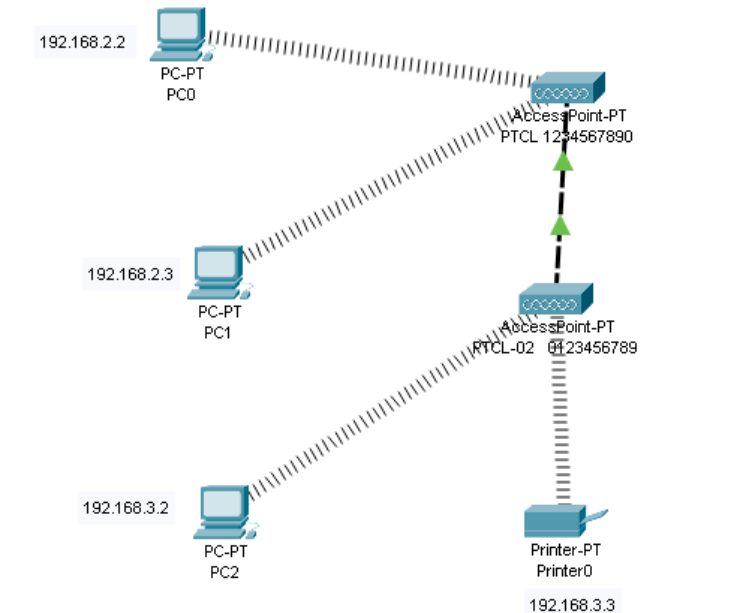
Pinging 192.168.2.3 with 32 bytes of data:

Reply from 192.168.2.3: bytes=32 time=39ms TTL=128
Reply from 192.168.2.3: bytes=32 time=15ms TTL=128
Reply from 192.168.2.3: bytes=32 time=28ms TTL=128
Reply from 192.168.2.3: bytes=32 time=16ms TTL=128

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 15ms, Maximum = 39ms, Average = 24ms
```

Task 3

Structure:



ARRANGMENTS :

We will take 4 pc .

We will also take an 2 access point , 1printer .

Then we will connect access point .

Connected with access point and access point also connecte wireless

With computer and printer.

PROCEDURE

First we will take ip address to the computer and also gateway.

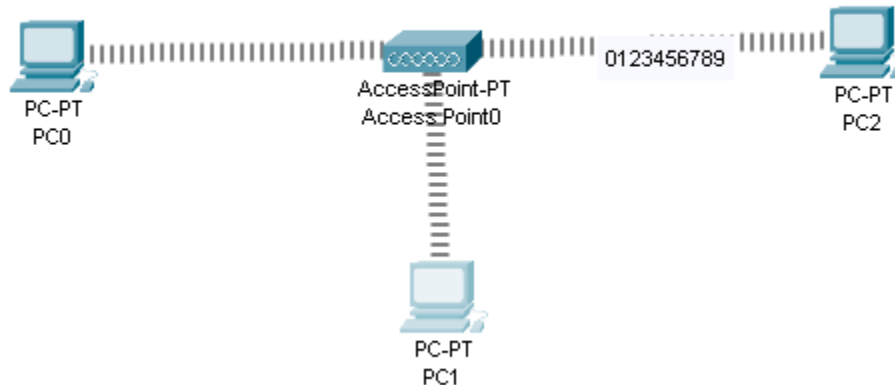
Then we set the password in access point in port 1.

Then we wirelessly connected a computer with access point and 2

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.4
Pinging 192.168.2.4 with 32 bytes of data:
Reply from 192.168.2.4: bytes=32 time=25ms TTL=128
Reply from 192.168.2.4: bytes=32 time=91ms TTL=128
Reply from 192.168.2.4: bytes=32 time=28ms TTL=128
Reply from 192.168.2.4: bytes=32 time=39ms TTL=128
Ping statistics for 192.168.2.4:
    Packets: Sent = 4, Received = 4, Loss = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 25ms, Maximum = 39ms, Average = 30ms
```

Task 4

Structure



ARRANGMENTS :

We will take 2pc .

We will also take an access point .

Then we will connect a pc wirelessly.

Connected with access point and access point also connecte wireless

With computer and printer.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we set the password in access point in port 1.

Then we wirelessly connected a computer with access point and 2

Printers

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.3

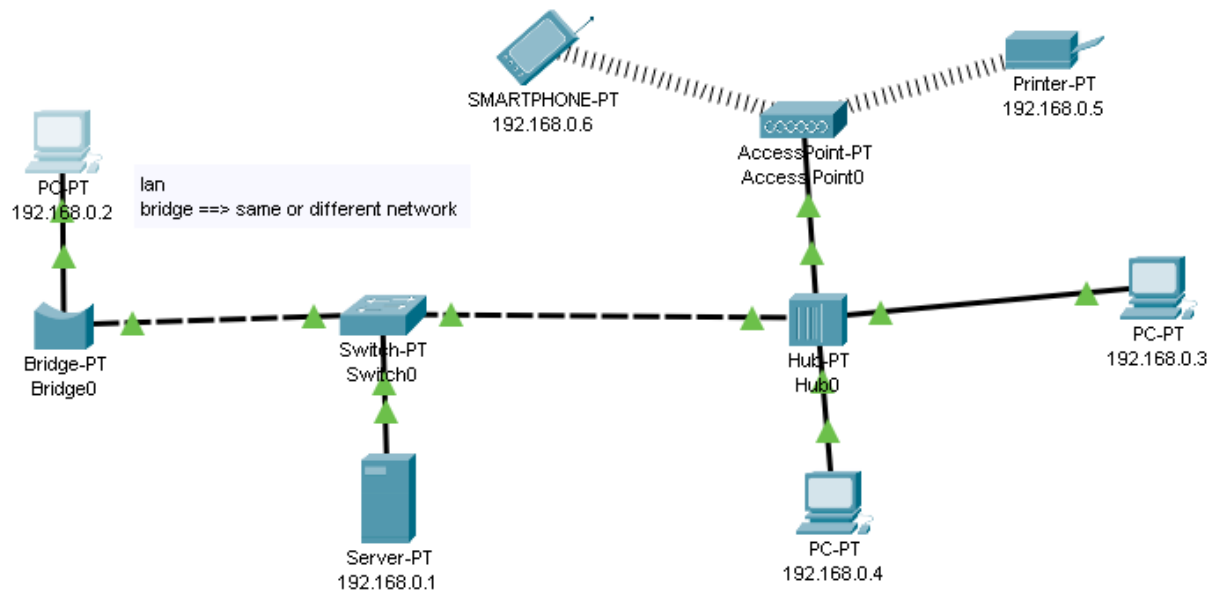
Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=70ms TTL=128
Reply from 192.168.0.3: bytes=32 time=20ms TTL=128
Reply from 192.168.0.3: bytes=32 time=18ms TTL=128
Reply from 192.168.0.3: bytes=32 time=26ms TTL=128

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 18ms, Maximum = 70ms, Average = 33ms
```

Task 5

Structure:



ARRANGMENTS :

We will take 3 pc one switch ,2 pt hub and server.

We will also take an access point , 1printer .

Then we will connect a switch and other devices according to our need.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will set DHCP server with gateway.

Then we set the password in access point in port 1.

Then we connected computers and other devices.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.3

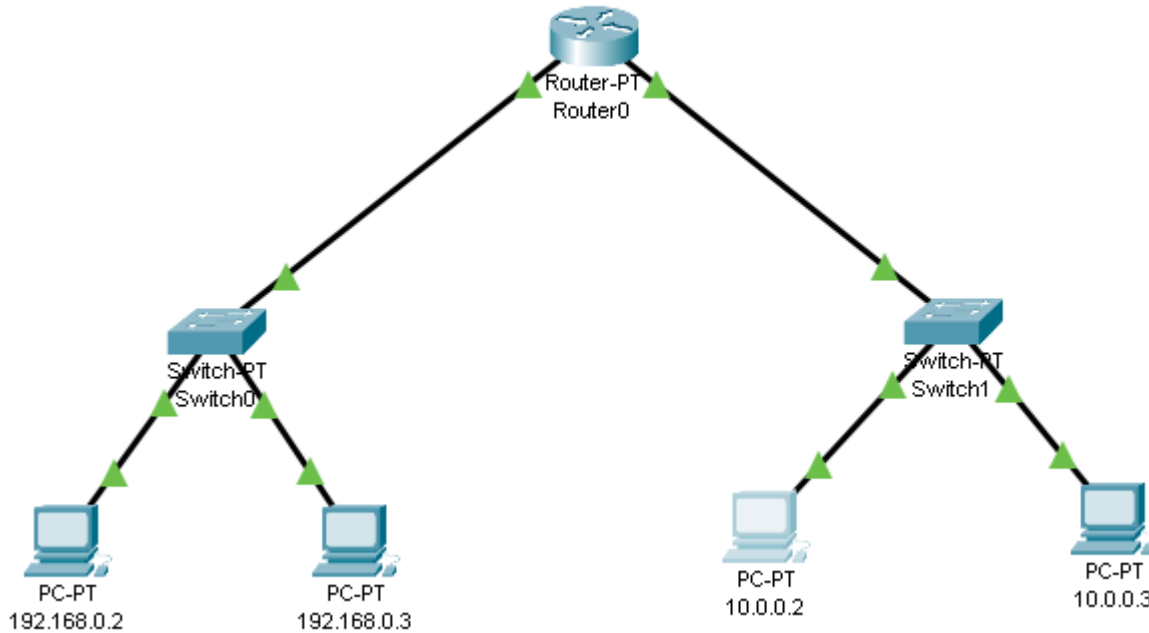
Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

TASK 6

STRUCTURE:



ARRANGMENTS :

We will take 4 pc 2switch and one router.

Then we will connect a 2 switch with pc and router and switch is Connected with computers.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will give a gate way to the router.

Then we set the password in access point in port 1.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.2

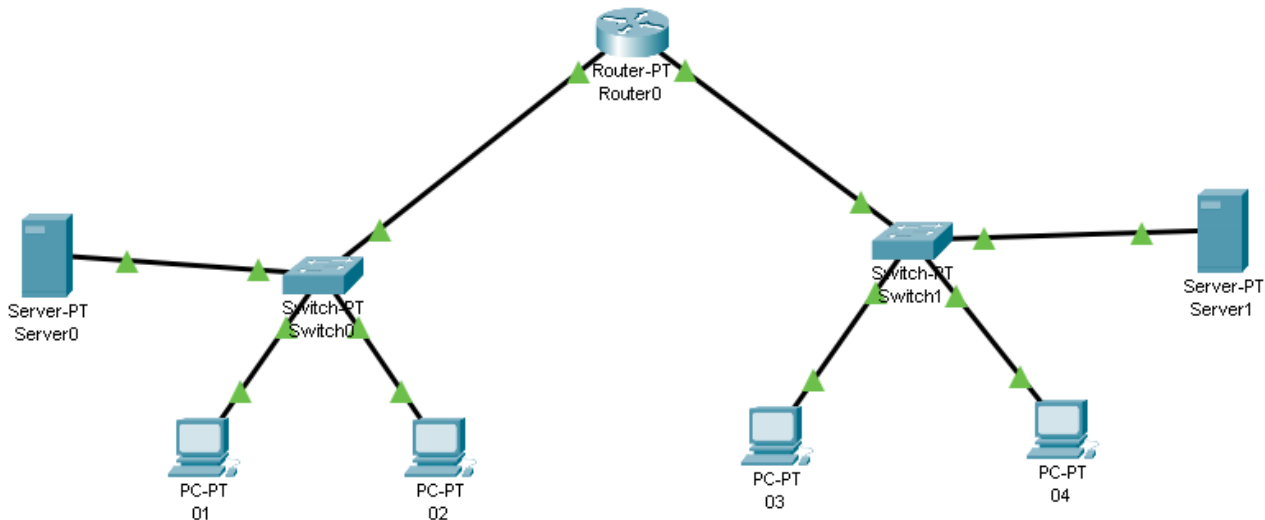
Pinging 192.168.0.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.0.2: bytes=32 time=1ms TTL=127
Reply from 192.168.0.2: bytes=32 time=1ms TTL=127
Reply from 192.168.0.2: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```


Task 7

Structure:



ARRANGMENTS :

We will take 4 pc 2switch and one router and 2 server.

Then we will connect a switch with pc and router and switch is Connected with automatic wire.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will give a gate way to the router.

Then we ping the computer through ips .

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.3

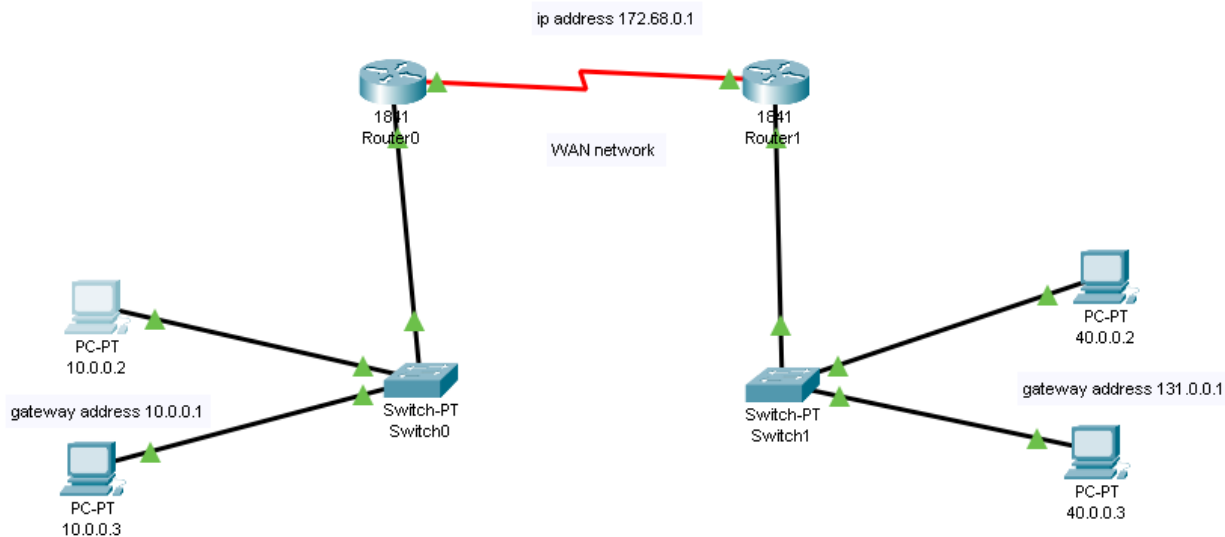
Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time<1ms TTL=127
Reply from 192.168.0.3: bytes=32 time<1ms TTL=127
Reply from 192.168.0.3: bytes=32 time<1ms TTL=127
Reply from 192.168.0.3: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Task 8

Structure:



ARRANGMENTS :

We will take 4 pc 2switch and one router.

Then we will connect a switch with pc and router and switch is Connected with automatic wire.connect 2 lans network.

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we will give a gate way to the router.

Then we ping the computer through ips

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.2

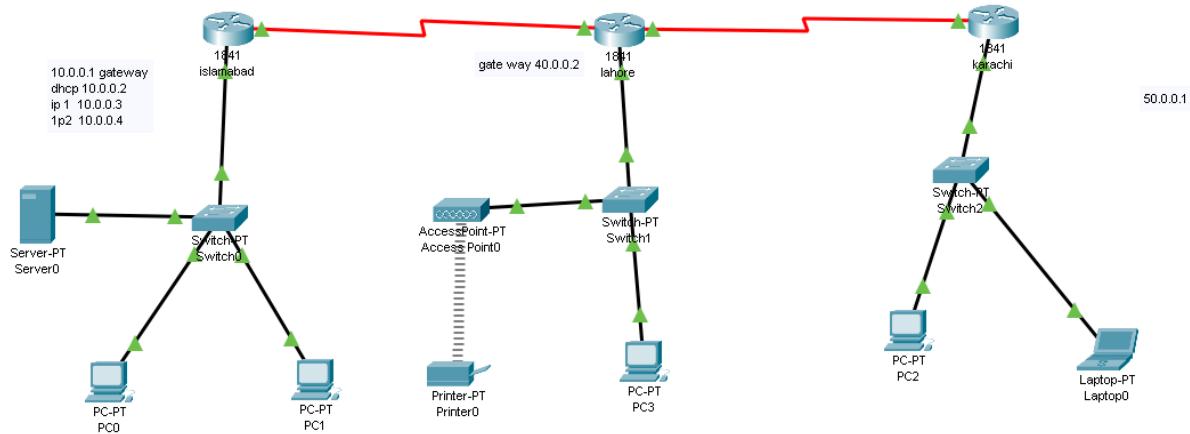
Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time=14ms TTL=126
Reply from 10.0.0.2: bytes=32 time=2ms TTL=126
Reply from 10.0.0.2: bytes=32 time=5ms TTL=126
Reply from 10.0.0.2: bytes=32 time=2ms TTL=126

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 14ms, Average = 5ms
```

Task 9

Structure:



ARRANGMENTS :

We will take 5 pc .

We will also take an 1 access point , 1printer .

Then we will connect access point .

Connected with access point and access point also connecte wireless
With printer.

We will connect 3 lans networks .

PROCEDURE

First we will take ip address to the computer and also gateway.

Then we set the password in access point in port 1.

Then we wirelessly connected a printer with access point .

Then we will ping the result.

```
C:\Users\Tracer>ping 50.0.0.4
Pinging 50.0.0.4 with 32 bytes of data:
Reply from 50.0.0.4: bytes=32 time=1ms TTL=125
Reply from 50.0.0.4: bytes=32 time=0ms TTL=125
Reply from 50.0.0.4: bytes=32 time=1ms TTL=125
Reply from 50.0.0.4: bytes=32 time=1ms TTL=125
Ping statistics for 50.0.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 1ms
```

These are the all connection we will do in the wan network and perform our task.