

Packet Trace -

IPv4 IPv6

		IP /		
R1	G0/0	10.10.1.97	255.255.255.224	—
		2001:db8:1:1::1/64		
	S0/0/1	10.10.1.6	255.255.255.252	—
		2001:db8:1:2::2/64		
		fe80::1		
R2	S0/0/0	10.10.1.5	255.255.255.252	—
		2001:db8:1:2::1/64		
	S0/0/1	10.10.1.9	255.255.255.252	—
		2001:db8:1:3::1/64		
		fe80::2		
R3	G0/0	10.10.1.17	255.255.255.240	—
		2001:db8:1:4::1/64		
	S0/0/1	10.10.1.10	255.255.255.252	—
		2001:db8:1:3::2/64		
		fe80::3		
PC1	NIC	10.10.1.100	255.255.255.224	10.10.1.97
		2001:DB8:1:1::A		FE80::1
PC2	NIC	10.10.1.20	255.255.255.240	10.10.1.17
		2001:DB8:1:4::A		FE80::3

1.
2.
3.

ping

IPv4 IPv6.

IPv4 IPv6
ping

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IPv4 IPv6. IPv4- IPv6-

1: IPv4- ipconfig.

a. PC1 Command Prompt ().

. ipconfig /all IPv4- .
, IPv4- ,

. PC2 Command Prompt ().

1. **ipconfig /all** IPv4-
2. **IPv6- ipv6config.**

a. **PC1** **ipv6config /all** IPv6-

PC2 **ipv6config /all** IPv6-

2. **Ping**

1: **ping** IPv4.

a. **PC1** IPv4- **PC2.**

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```
C:\>ping 10.10.1.20

Pinging 10.10.1.20 with 32 bytes of data:

Request timed out.
Reply from 10.10.1.20: bytes=32 time=4ms TTL=125
Reply from 10.10.1.20: bytes=32 time=12ms TTL=125
Reply from 10.10.1.20: bytes=32 time=15ms TTL=125

Ping statistics for 10.10.1.20:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 15ms, Average = 10ms
```

PC2 IPv4- **PC1.**

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```
C:\>ping 10.10.1.97

Pinging 10.10.1.97 with 32 bytes of data:

Reply from 10.10.1.97: bytes=32 time=18ms TTL=253
Reply from 10.10.1.97: bytes=32 time=16ms TTL=253
Reply from 10.10.1.97: bytes=32 time=20ms TTL=253
Reply from 10.10.1.97: bytes=32 time=16ms TTL=253

Ping statistics for 10.10.1.97:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 16ms, Maximum = 20ms, Average = 17ms
```

2. **IPv6- ping.**

a. **PC1** IPv6- **PC2.**

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```

C:\>ping 2001:DB8:1:4::A

Pinging 2001:DB8:1:4::A with 32 bytes of data:

Reply from 2001:DB8:1:4::A: bytes=32 time=40ms TTL=125
Reply from 2001:DB8:1:4::A: bytes=32 time=6ms TTL=125
Reply from 2001:DB8:1:4::A: bytes=32 time=13ms TTL=125
Reply from 2001:DB8:1:4::A: bytes=32 time=13ms TTL=125

Ping statistics for 2001:DB8:1:4::A:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 6ms, Maximum = 40ms, Average = 18ms

```

PC1 IPv6- PC2.

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```

C:\>ping 2001:DB8:1:1::A

Pinging 2001:DB8:1:1::A with 32 bytes of data:

Reply from 2001:DB8:1:1::A: bytes=32 time=2ms TTL=125
Reply from 2001:DB8:1:1::A: bytes=32 time=11ms TTL=125
Reply from 2001:DB8:1:1::A: bytes=32 time=11ms TTL=125
Reply from 2001:DB8:1:1::A: bytes=32 time=11ms TTL=125

Ping statistics for 2001:DB8:1:1::A:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 11ms, Average = 8ms

```

3.

1: tracert IPv4.

a. PC1 PC2.

PC> tracert 10.10.1.20

?

```

Tracing route to 10.10.1.20 over a maximum of 30 hops:

  1  0 ms      0 ms      0 ms      10.10.1.97
  2  0 ms      2 ms      2 ms      10.10.1.5
  3  5 ms      4 ms      3 ms      10.10.1.10
  4  0 ms      0 ms      2 ms      10.10.1.20

```

?

R1 G0/0

R2 S0/0/0

R3 S0/0/1

PC2 NIC

. PC2 PC1.

?

```
Tracing route to 10.10.1.100 over a maximum of 30 hops:
```

1	0 ms	0 ms	0 ms	10.10.1.17
2	0 ms	0 ms	1 ms	10.10.1.9
3	1 ms	2 ms	1 ms	10.10.1.6
4	1 ms	0 ms	2 ms	10.10.1.100

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R3 G0/0
R2 S0/0/1
R1 S0/0/1
PC1 NIC

2. **tracert** **IPv6-** .
a. **PC1** **IPv6-** **PC2.**

```
PC> tracert 2001:db8:1:4::a
```

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1	0 ms	0 ms	0 ms	2001:DB8:1:1::1
2	0 ms	1 ms	1 ms	2001:DB8:1:2::1
3	1 ms	1 ms	1 ms	2001:DB8:1:3::2
4	25 ms	1 ms	1 ms	2001:DB8:1:4::A

?

R1 G0/0
R2 S0/0/0
R3 S0/0/1
PC2 NIC

- . **PC2** **IPv6-** **PC1.**

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```
C:\>tracert 2001:DB8:1:1::A
```

```
Tracing route to 2001:DB8:1:1::A over a maximum of 30 hops:
```

1	0 ms	0 ms	0 ms	2001:DB8:1:4::1
2	0 ms	0 ms	0 ms	2001:DB8:1:3::1
3	2 ms	2 ms	2 ms	2001:DB8:1:2::2
4	1 ms	1 ms	0 ms	2001:DB8:1:1::A

?

R3 G0/0
R2 S0/0/1
R1 S0/0/1
PC1 NIC

