

## Ran Xia Lab 05

### Question 1:

```
Command Prompt
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Users\xia_r>tracert www.webawards.com.au
'tracert' is not recognized as an internal or external command,
operable program or batch file.
C:\Users\xia_r>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::ade7:2b12:d601:be7b%10
    IPv4 Address. . . . . : 172.20.10.3
    Subnet Mask . . . . . : 255.255.255.240
    Default Gateway . . . . . : 172.20.10.1
Ethernet adapter Bluetooth Network Connection 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
C:\Users\xia_r>
```

My IP address is 172. 20. 10. 3

### Question 2:

```
Command Prompt
C:\Users\xia_r>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::ade7:2b12:d601:be7b%10
    IPv4 Address. . . . . : 172.20.10.3
    Subnet Mask . . . . . : 255.255.255.240
    Default Gateway . . . . . : 172.20.10.1
Ethernet adapter Bluetooth Network Connection 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
C:\Users\xia_r>tracert www.webawards.com.au

Tracing route to www.webawards.com.au [104.31.83.67]
over a maximum of 30 hops:
  0  4 ms  2 ms  2 ms  172.20.10.1
  1  57 ms  45 ms  48 ms  172.20.10.1
  2  *  *  *  Request timed out.
  3  29 ms  28 ms  36 ms  172.20.10.1
  4  40 ms  30 ms  47 ms  172.20.10.1
  5  53 ms  26 ms  36 ms  144.232.14.7
  6  95 ms  41 ms  35 ms  144.232.15.174
  7  136 ms  140 ms  55 ms  144.228.205.46
  8  92 ms  35 ms  32 ms  195.22.206.73
  9  37 ms  27 ms  33 ms  104.31.83.67
Trace complete.
C:\Users\xia_r>
```

The first IP address, 172. 20. 10. 1, is a private IP which is the default gateway.

### Question 3:

```
Command Prompt
C:\Users\xia_r>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::ade1:2b12:d501:be7b%10
    IPv4 Address. . . . . : 172.20.10.3
    Subnet Mask . . . . . : 255.255.255.240
    Default Gateway . . . . . : 172.20.10.1

Ethernet adapter Bluetooth Network Connection 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

C:\Users\xia_r>tracert www.webawards.com.au

Tracing route to www.webawards.com.au [104.31.83.67]
over a maximum of 30 hops:
  0  0 ms  0 ms  0 ms  172.20.10.1
  1  57 ms  45 ms  48 ms  ip-68-29-35-3.pools.spcsdns.net [68.29.35.3]
  2  *  *  *  Request timed out.
  3  29 ms  28 ms  36 ms  ip-68-29-39-9.pools.spcsdns.net [68.29.39.9]
  4  40 ms  30 ms  47 ms  sl-crs2-rlv-lcl-.sprintlink.net [144.228.188.9]
  5  53 ms  26 ms  36 ms  144.232.14.7
  6  95 ms  41 ms  35 ms  144.232.15.174
  7  136 ms  140 ms  55 ms  sl-telec36-555961-0.sprintlink.net [144.228.205.46]
  8  92 ms  35 ms  32 ms  cloudflare.ashburn2.ash.seabone.net [195.22.206.73]
  9  37 ms  27 ms  33 ms  104.31.83.67

Trace complete.

C:\Users\xia_r>
```

Second IP address, 68. 29. 35. 3, is a public IP.

### Question 4:

Hop count	IP address	Organization (IP owner)	Location (US state)/ Country	Private/Public
1	172.20.10.1	IANA	Local	Private
2	68.29.35.3	Sprint	Relay, MD USA	Public
3	Request timed out	N/A	N/A	N/A
4	68.29.39.9	Sprint	Relay, MD USA	Public
5	144.228.188.9	Sprint	Reston, VA USA	Public
6	144.232.14.7	Sprint	Reston, VA USA	Public
7	144.232.15.174	Sprint	Reston, VA USA	Public
8	144.228.205.46	Sprint	Reston, VA USA	Public
9	195.22.206.73	Telecom Italia Sparkle S.p.A	Milan, Lombardian Italy	Public
10	104.31.83.67	Cloudflare Inc.	San Francisco, CA USA	Public

### Question 5:

Connection established via IOS Hotspot, ISP sprint.

Used command “tracert” to trace route to www.webawards.com.au [104. 31. 83. 67].

Route taken by the packet: Relay, MD USA to Reston, VA USA to Milan, Lombardian Italy to San Francisco, CA USA;

Total US states: 3, Maryland, Virginia and California;

Total Countries: 2, US and Italy.