

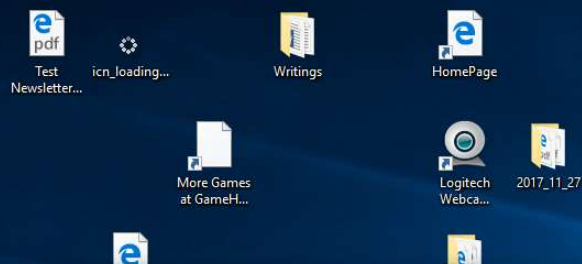
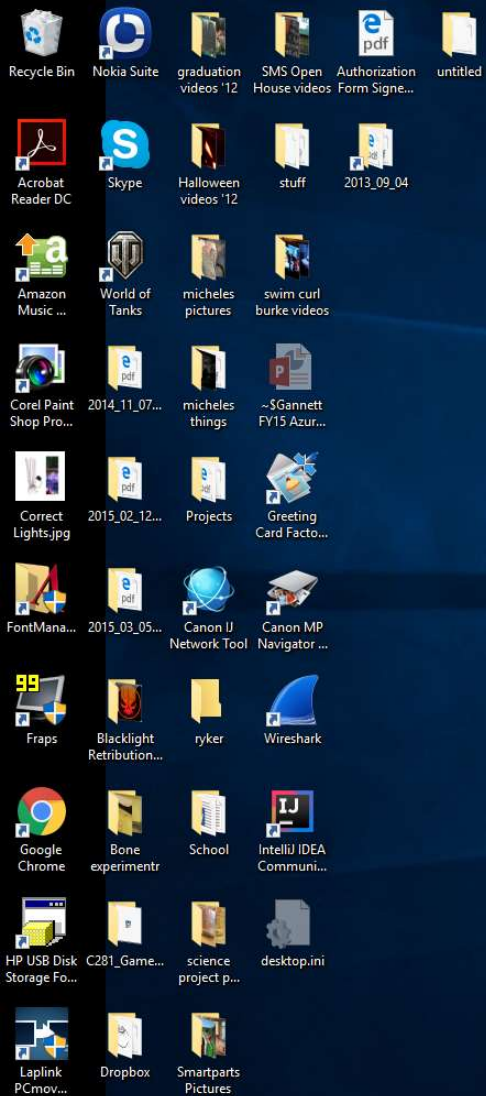
Wireshark Lab 5 - Traceroute

IT 520 –A – Enterprise Infrastructure & Networks

David Gogolkiewicz

Notes

- The traceroute command from my home computer only showed 2 hops. One to my router and the other to the destination website. I am assuming this is a firewall issue with my Verizon router.
- I tried getting on the web at the local coffee shop and got the same result. Same thing, probably a firewall issue on my side.
- I decided to use ultratools traceroute function on their website going through their servers and had a much better result



```
Command Prompt
Microsoft Windows [Version 10.0.17134.648]
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C:\Users\dgogo>tracert www.webawards.com.au

Tracing route to www.webawards.com.au [104.31.83.67]
over a maximum of 30 hops:

  1  <1 ms  <1 ms  <1 ms  Fios_Quantum_Gateway.fios-router.home [192.168.1.1]
  2   9 ms   8 ms   9 ms  104.31.83.67

Trace complete.

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

Tracing route to www.webawards.com.au [104.31.82.67]
over a maximum of 30 hops:

  1  <1 ms  <1 ms  <1 ms  Fios_Quantum_Gateway.fios-router.home [192.168.1.1]
  2  12 ms   6 ms  10 ms  104.31.82.67

Trace complete.

C:\Users\dgogo>
```

Coffee shop traceroute from command line on Home computer.



Lab 5 - Traceroute

```
Command Prompt
1 * * * Request timed out.
2 * * * Request timed out.
3 * * * Request timed out.
4 * * * Request timed out.
5 * * * Request timed out.
6 * * * Request timed out.
7 * * * Request timed out.
8 * * * Request timed out.
9 17 ms 25 ms 21 ms 104.31.83.67

Trace complete.

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

Tracing route to www.webawards.com.au [104.31.83.67]
over a maximum of 30 hops:

 1 * * * Request timed out.
 2 * * * Request timed out.
 3 * * * Request timed out.
 4 * * * Request timed out.
 5 * * * Request timed out.
 6 * * * Request timed out.
 7 * * * Request timed out.
 8 * * * Request timed out.
 9 15 ms 17 ms 18 ms 104.31.83.67

Trace complete.

C:\Users\dgogolki>
```

Coffee shop traceroute from command line on Work computer.

of each IP address (include state for US states) and the organization that owns the IP address. (Use <https://www.ultratools.com/tools/ipWhoisLookup> to look up IP address whois information). Add a row for every single IP in your traceroute result page.

5. In your own words, explain everything you just did, and what route did your packet took from source to destination. How many US states did your packet go through? How many countries if any?

Screenshot of Traceroute. This worked!

What is the Difference Betw Marymount University - We Marymount - Portal Conversations Free Traceroute Test | Uptre IP Traceroute Tool | Ultr New tab

https://www.ultratools.com/tools/traceRouteResult

Email Share

IP Traceroute Tool

Traceroute checks the route packets take to the specified host from the UltraTools server.

Enter a host name or IP address, and Maximum Hops:

www.webawards.com.au 30 Go »

Related Tools: [Looking Glass](#) [Ping](#) [Ping-IPv6](#) [Traceroute-IPv6](#) [DNS Traversal](#)

```
Hop number: 1
Connected to: assc-ultrafw-vlan2598.dc10.neustar.com ( 10.176.98.1 )
Roundtrip times: 2.458 ms
                2.438 ms
                2.405 ms

Hop number: 2
Connected to: ash1fnsw02-vlan102.dc10.neustar.com ( 10.176.2.3 )
Roundtrip times: 2.697 ms
                2.675 ms
                2.689 ms

Hop number: 3
Roundtrip times: Timed out.

Hop number: 4
Connected to: ash1hnrtr01-vlan502.dc10.neustar.com ( 156.154.196.2 )
Roundtrip times: 4.848 ms
                4.847 ms
                4.841 ms
Country: united states

Hop number: 5
Connected to: et-0-0-43-3.cr2-was1.ip4.gtt.net ( 173.205.39.229 )
Roundtrip times: 5.772 ms
                5.765 ms
                5.752 ms
Country: germany

Hop number: 6
Connected to: cloudflare-gw.cr4-was1.ip4.gtt.net ( 69.174.23.102 )
Roundtrip times: 5.784 ms
                18.732 ms
                41.968 ms
Country: united states

Hop number: 7
Connected to: 104.31.82.67 ( 104.31.82.67 )
Roundtrip times: 6.496 ms
                6.475 ms
                6.451 ms
Country: united states
```

Domain Health
Domain Health Report

DNS Monitoring
Authoritative Monitoring

DNS Tools
DNS Hosting Speed

Email Tools
Email Test
RBL Database Lookup

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Type here to search

Address Links

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Question 1

```
Microsoft Windows [Version 10.0.17134.648]
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C:\Users\vdgogo>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : fios-router.home
    Link-local IPv6 Address . . . . . : fe80::7dd2:65fe:cb63:5d58%4
    IPv4 Address. . . . . : 192.168.1.195
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

Ethernet adapter Npcap Loopback Adapter:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::496e:f51d:a938:4bac%23
    Autoconfiguration IPv4 Address. . : 169.254.75.172
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 5:

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

Wireless LAN adapter Local Area Connection* 6:

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

My Private IP Address
- 192.168.1.195

Question 2

What type of IP address is the first IP from your traceroute result.
- Private (10.176.98.1)

Tracing Tools

- Looking Glass
- Ping
- Ping-IPv6
- Traceroute
- Traceroute-IPv6
- Vector Trace

IP Traceroute Tool

Traceroute checks the route packets take to the specified host from the UltraTools server.

Enter a host name or IP address, and Maximum Hops:

Related Tools: [Looking Glass](#) [Ping](#) [Ping-IPv6](#) [Traceroute-IPv6](#) [DNS Traversal](#)

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Roundtrip times: 2.697 ms
                2.675 ms
                2.689 ms

Hop number: 3
Roundtrip times: Timed out.

Hop number: 4
Connected to: ash1hnrtr01-vlan502.dc10.neustar.com ( 156.154.196.2 )
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Type here to search

Address

Links

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Question 3

What type of IP address
Is the second IP from your
traceroute result.

- Private (10.176.2.3)

Tracing Tools

- Looking Glass
- Ping
- Ping-IPv6
- Traceroute
- Traceroute-IPv6
- Vector Trace

IP Traceroute Tool

Traceroute checks the route packets take to the specified host from the UltraTools server.

Enter a host name or IP address, and Maximum Hops:

Related Tools: [Looking Glass](#) [Ping](#) [Ping-IPv6](#) [Traceroute-IPv6](#) [DNS Traversal](#)

```
Hop number: 1
Connected to: assc-ultrafw-vlan2598.dc10.neustar.com ( 10.176.98.1 )
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                2.438 ms
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Hop number: 2
Connected to: ash1fnsw02-vlan102.dc10.neustar.com ( 10.176.2.3 )
Roundtrip times: 2.697 ms
                2.675 ms
                2.689 ms

Hop number: 3
Roundtrip times: Timed out

Hop number: 4
Connected to: ash1hnrtr01-vlan502.dc10.neustar.com ( 156.154.196.2 )
Roundtrip times: 4.848 ms
                4.847 ms
                4.841 ms
Country: united states

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                5.752 ms
Country: germany

Hop number: 6
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                18.732 ms
                41.968 ms
Country: united states

Hop number: 7
Connected to: 104.31.82.67 ( 104.31.82.67 )
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                6.475 ms
                6.451 ms
Country: united states
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Question 4

In a tabular format (use table example below), and in sequential order. Indicate the location of each IP address (include state for US states) and the organization that owns the IP address

Hop Count	IP Address	Organization (IP Owner)	Location (US State / Country)
1	10.176.98.1	IANA	Los Angeles, CA, USA
2	10.176.2.3	IANA	Los Angeles, CA USA
3	Timed out		
4	156.154.196.2	NeuStar	Sterling, VA USA
5	173.205.39.229	Tinet	Neu-Isenburg, Germany
6	69.174.23.102	GTT	Neu-Isenburg, Germany
7	104.31.82.67	Cloudflare, Inc.	San Francisco, CA

Question 5

In your own words, explain everything you just did, and what route did your packet took from source to destination. How many US states did your packet go through? How many countries if any?

- I had to use the UltraTools IP Traceroute website since I was not getting any route information from either my work laptop or my home laptop. Antivirus / Firewall Issues. The packet went to California, then Sterling VA (which I assume is the big datacenter in Ashburn), then the packet went to Germany then back to California. The longest round trip time was, hop 6 to Germany which makes sense given the distance. 2 states and one country.
- I ran this route using another Traceroute tool and my packet ended up going though what I believe was China since the 3 hops were registered but no trace information was provided, though Hong Kong and back to California. Pretty cool.