# Footprinting and Reconnaissance Module 02 (Lab Assignment)

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## Footprinting a target Network using the Ping Utility.

#### Aim - Use Ping

Emulate the tracert command using ping
Find maximum Frame size for the network
Identify ICMP type and code for the echo request and echo reply packets

1. Ping www.certifiedhacker.com

```
C:\Windows\system32>ping www.certifiedhacker.com

Pinging certifiedhacker.com [162.241.216.11] with 32 bytes of data:
Reply from 162.241.216.11: bytes=32 time=331ms TTL=42
Reply from 162.241.216.11: bytes=32 time=309ms TTL=42
Reply from 162.241.216.11: bytes=32 time=337ms TTL=42
Reply from 162.241.216.11: bytes=32 time=317ms TTL=42

Ping statistics for 162.241.216.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 309ms, Maximum = 337ms, Average = 323ms
```

2. To find maximum frame size on the network

```
C:\Windows\system32>ping www.certifiedhacker.com -f -l 1472

Pinging certifiedhacker.com [162.241.216.11] with 1472 bytes of data:
Reply from 162.241.216.11: bytes=1472 time=427ms TTL=42
Reply from 162.241.216.11: bytes=1472 time=382ms TTL=42
Reply from 162.241.216.11: bytes=1472 time=329ms TTL=42
Reply from 162.241.216.11: bytes=1472 time=612ms TTL=42

Ping statistics for 162.241.216.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 329ms, Maximum = 612ms, Average = 437ms
```

**Note:** This shows that 1472 is the maximum frame size on this machine network.

3. Find out what happens when TTI expires

```
C:\Windows\system32>ping www.certifiedhacker.com -i 3
Pinging certifiedhacker.com [162.241.216.11] with 32 bytes of data:
Reply from 10.71.201.202: TTL expired in transit.
Reply from 10.71.201.202: TTL expired in transit.
Request timed out.
Reply from 10.71.201.202: TTL expired in transit.
Ping statistics for 162.241.216.11:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
```

Note: TTL expired in transit because TTL has expired (reached 0).

4.

```
C:\Windows\system32>ping www.certifiedhacker.com -i 24 -n 1
Pinging certifiedhacker.com [162.241.216.11] with 32 bytes of data:
Reply from 162.241.216.11: bytes=32 time=613ms TTL=41
Ping statistics for 162.241.216.11:
    Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 613ms, Maximum = 613ms, Average = 613ms
```

Tool/Utility	Information Collected/Objectives
	Achieved
Ping	IP Address: 162.241.216.11
	Packet Statistics:
	Packets Sent - 4
	Packets Received - 4
	Packet Lost - 0
	Approximate Round Trip Time – 323ms
	Maximum Frame Size: 1472
	TTL Response: 24 hops

## 5. By using Tracert

```
:\Windows\system32>tracert www.certifiedhacker.com
Tracing route to certifiedhacker.com [162.241.216.11]
over a maximum of 30 hops:
        16 ms
                     6 ms
                                  3 ms 192.168.43.51
                                          Request timed out.
                               873 ms 10.71.201.202
       948 ms
                   685 ms
                  863 ms 1174 ms 172.25.55.195
937 ms 917 ms 172.26.56.79
255 ms 565 ms 172.25.8.10
      1071 ms
       802 ms
       125 ms
                                          Request timed out.
                                          Request timed out.
                                          Request timed out.
                             46 ms 103.198.140.184
607 ms 49.45.4.103
601 ms 49.45.4.103
       139 ms
                    42 ms
       683 ms
                   609 ms
       744 ms
                   611 ms
                               613 ms be4918.ccr41.lax05.atlas.cogentco.com [38.104.85.57]
        789 ms
                   614 ms
                               535 ms be3359.ccr42.lax01.atlas.cogentco.com [154.54.3.69]
                   486 ms
                               555 ms be3559.ccr32.phx01.atlas.cogentco.com [154.54.3..o9]
599 ms be2932.ccr32.phx01.atlas.cogentco.com [154.54.42.161]
610 ms be2930.ccr21.elp01.atlas.cogentco.com [154.54.42.78]
611 ms be2928.ccr42.iah01.atlas.cogentco.com [154.54.30.161]
612 ms be3493.rcr21.iah02.atlas.cogentco.com [154.54.30.174]
                   615 ms
       712 ms
       772 ms
                   615 ms
 17
18
19
       781 ms
                   611 ms
       601 ms
                   612 ms
                               723 ms be3631.nr51.b023723-0.iah02.atlas.cogentco.com [154.24.30.38] 613 ms 38.122.196.34
       809 ms
                   824 ms
 20
       978 ms
                   607 ms
                               638 ms 216.117.50.150
       638 ms
                   588 ms
                                          po101.router2a.hou1.net.unifiedlayer.com [162.241.0.7]
       315 ms
                   305 ms
                               299 ms
                   598 ms
                               446 ms 108.167.150.118
       572 ms
                               599 ms box5331.bluehost.com [162.241.216.11]
       654 ms
                   649 ms
Trace complete.
```

## Footprinting a target Network using the nslookup Tool.

**Aim**: Execute the nslookup command

Find the IP address of a machine

Change the server you want the response from

Elicit an authoritative answer from the DNS server

Find the name servers for a domain

Find Cname for a domain

Find mail servers for a domain

Identify various DNS resource records

## 1. Type nslookup and help

## 2. Set type = a.

```
> set type=a
> www.certifiedhacker.com
Server: UnKnown
Address: 192.168.43.202

Non-authoritative answer:
Name: certifiedhacker.com
Address: 162.241.216.11
Aliases: www.certifiedhacker.com
```

#### Set type=cname

```
> server 64.147.99.90
DNS request timed out.
    timeout was 2 seconds.
Default Server: [64.147.99.90]
Address: 64.147.99.90
> set type=a
> www.certifiedhacker.com
Server: [64.147.99.90]
Address: 64.147.99.90
DNS request timed out.
    timeout was 2 seconds.
DNS request timed out.
    timeout was 2 seconds.
**** Request to [64.147.99.90] timed-out
```

Request timed out message, shows that firewall is preventing you from sending DNS queries outside your LAN.

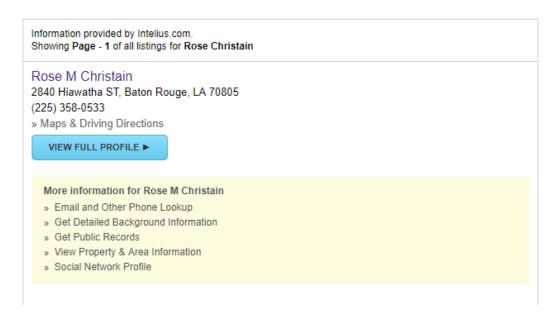
## 4. Set type=mx

```
> set type=mx
> certifiedhacker.com
Server: UnKnown
Address: 192.168.43.202
Non-authoritative answer:
certifiedhacker.com MX preference = 0, mail exchanger = mail.certifiedhacker.com
>
```

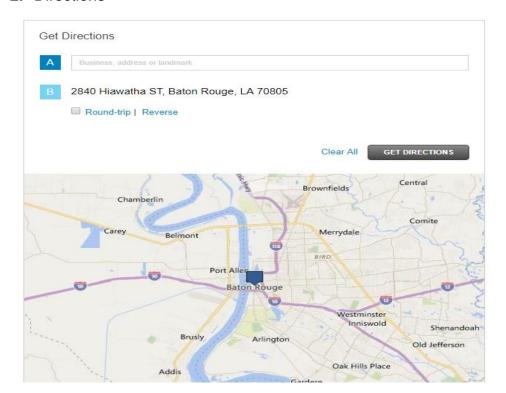
Tool/Utility	Information Collected/Objective
	Achieved
nslookup	<b>DNS Server Name</b> :192.168.43.202
	Non-Authoriative Answer:
	162.241.216.11
	CNAME
	Alias:certifiedhacker.com
	Canonical name: Unknown
	MX (Mail
	Exchanger):mail.certifiedhacker.com

# People search through using the AnyWho online tool

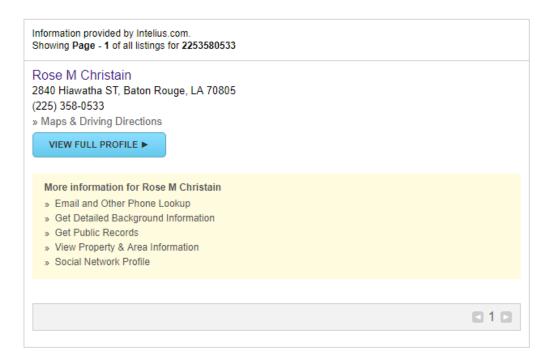
1. Using AnyWho searched Rose Christain.



#### 2. Directions



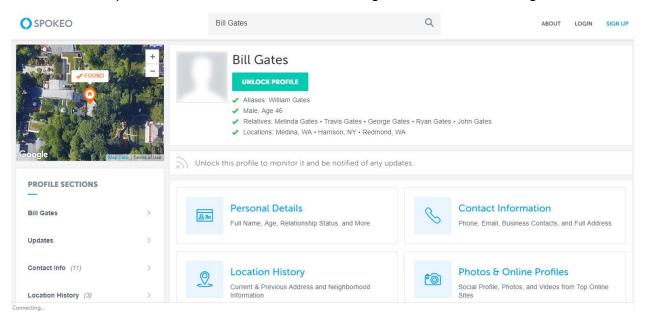
## **3.** Reverse Lookup for 2253580533



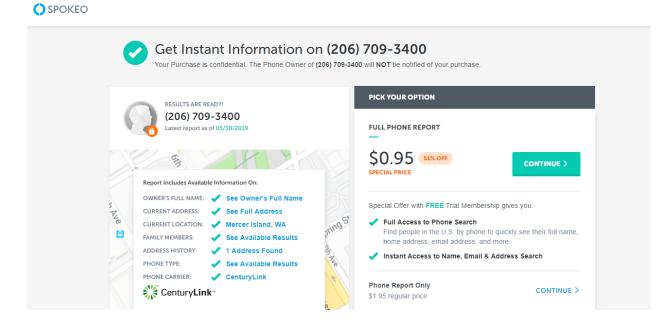
Tool/Utility	Information Collected/Objective Achieved
AnyWho	Rose Christian – 2840 Hiwatha ST, Baton Rouge, LA 70805, Ph- 2253580533
	<b>Precise Route</b> – for the person is found
	<b>Reverse lookup (2253580533)</b> – Rose
	Christian 2840 Hiwatha ST, Baton Rouge,
	LA 70805.

# People Search Using the Spokeo online tool.

1. Used Spokeo online tool and Searched Bill gates, State - Washington.



2. Reverse look up for phone number – (206)709-3400

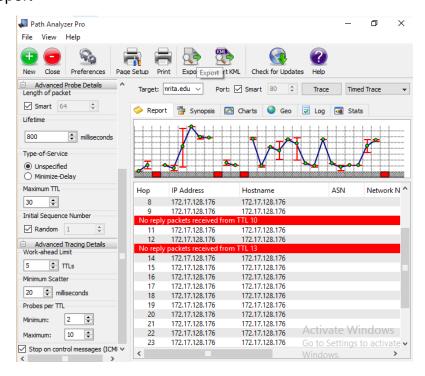


Note: Can't get the details in both the cases, since the Spokeo online tool is asking 0.95 dollar for revealing the information.

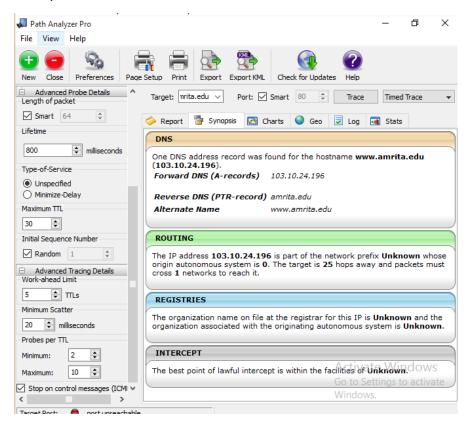
Tool/Utility	Information Collected/Objective Achieved
Spokeo	Profile Details:
	Current Address: need to pay
	Phone Number: need to pay
	Email Address: need to pay
	Marital Status: need to pay
	Education: need to pay
	Occupation: need to pay
	Location History: need to pay
	Family Background: need to pay
	Photos& Social Profiles: need to pay
	Neighborhood: need to pay
	Reverse Lookup: need to pay

## **Network Route Trace Using Path Analyzer Pro**

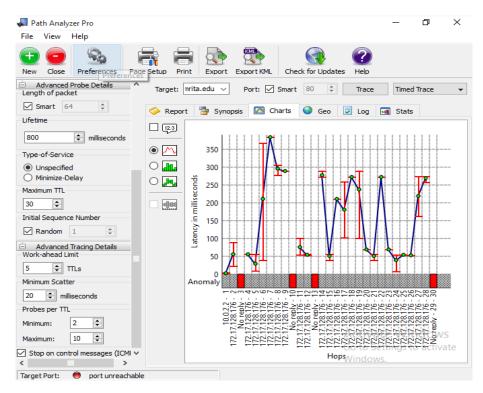
- 1. Target is www.amrita.edu
- 2. Trace Report



## 3. Synopsis Report



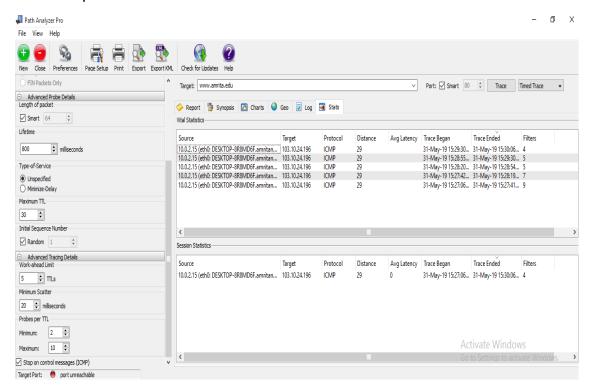
#### 4. Charts



## 5.Geo Report



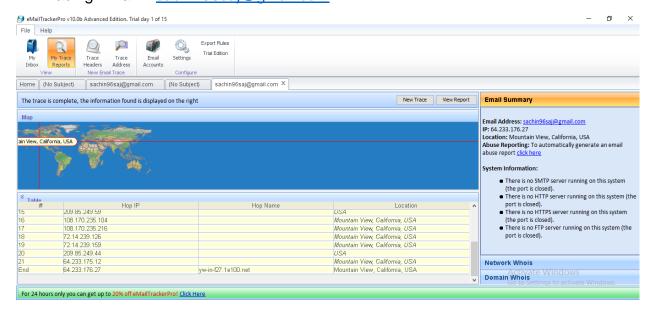
## 5. Stats Report



Tool/Utility	Information Collected/Objectives Achieved
Path Analyzer Pro	Report:
-	Number of hops: 28
	IP address:172.17.128.176
	Hostname: www.amrita.edu
	ASN: nil
	Network name: nil
	<b>Latency:</b> 266.46
	Synopsis: Displays Summary of
	Valuable information on DNS, Routing,
	Registries, Intercept (Given Above)
	Charts: Trace results in the form of
	chart (Given Above)
	<b>Geo:</b> Geographical view of the path
	traced (Given above)
	Stats: Statistics of the trace (Given
	Above)

## Tracing an Email Using the eMailTrackerProTool

1. Tracing Email - sachin96saj@gmail.com



Tool/Utility	Information Collected/Objective
	Achieved
eMailTrackerPro	Map: Location of traced email in GUO
	map (showen above)
	Table: 21 hops
	Email Summary: Summary of the
	traced email
	From and to email address:
	sachin96saj@gmail
	<b>Date:</b> 31/5/2019
	Subject: nil
	Location: Mountain View, California,
	USA
	Trace Information
	Subject: nil
	<b>Sender IP:</b> 64.233.176.27
	Location: Mountain View, California,
	USA

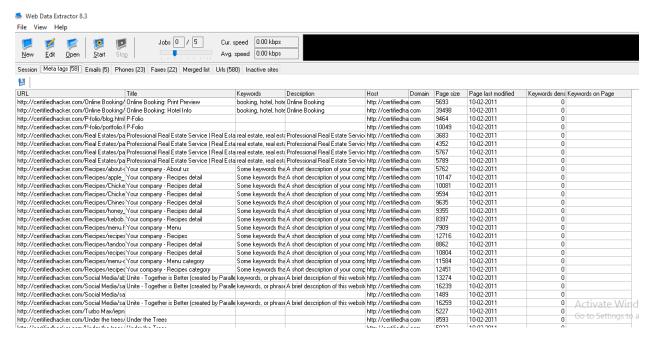
# Mirroring Website Using the HTTrack Web Site Copier Tool



Tool/Utility	Information Collected/Objective Achieved
HTTrack Web Site Copier	Offline copy of the website
	www.certifiedhacker.com is created

# **Extracting a Company's Data Using Web Data Extractor**

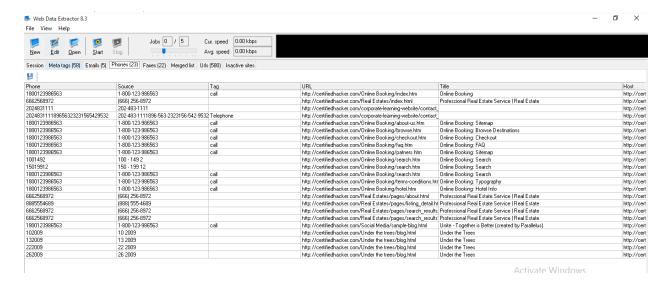
## 1. Meta Tags



#### Emails



#### 3. Phone Information



Tool/Utility	Information Collected/Objective
	Achieved
Web Data Extractor	Meta tags Information : Given above
	Email Information: Given Above
	Phone Information: Given Above