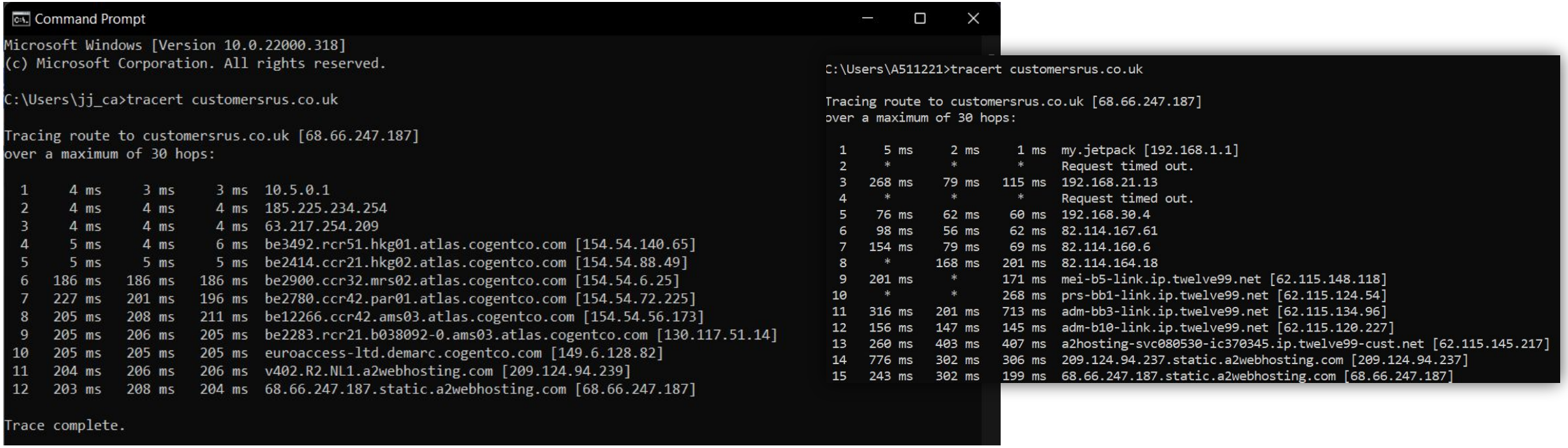
UNIVERSITY OF ESSEX

PRACTICAL ACTIVITY - SCANNING EXERCISE

NETWORK AND INFORMATION SECURITY MANAGEMENT NOVEMBER 2021 A

GROUP 3

[CUSTOMERSRUS.CO.UK] TRACERT / TRACEROUTE



Command Prompt

```
Microsoft Windows [Version 10.0.22000.318]
(c) Microsoft Corporation. All rights reserved.

C:\Users\jj_ca>tracert customersrus.co.uk

Tracing route to customersrus.co.uk [68.66.247.187]
over a maximum of 30 hops:

  1     4 ms     3 ms     3 ms  10.5.0.1
  2     4 ms     4 ms     4 ms  185.225.234.254
  3     4 ms     4 ms     4 ms  63.217.254.209
  4     5 ms     4 ms     6 ms  be3492.rcr51.hkg01.atlas.cogentco.com [154.54.140.65]
  5     5 ms     5 ms     5 ms  be2414.ccr21.hkg02.atlas.cogentco.com [154.54.88.49]
  6   186 ms   186 ms   186 ms  be2900.ccr32.mrs02.atlas.cogentco.com [154.54.6.25]
  7   227 ms   201 ms   196 ms  be2780.ccr42.par01.atlas.cogentco.com [154.54.72.225]
  8   205 ms   208 ms   211 ms  be12266.ccr42.ams03.atlas.cogentco.com [154.54.56.173]
  9   205 ms   206 ms   205 ms  be2283.rcr21.b038092-0.ams03.atlas.cogentco.com [130.117.51.14]
 10   205 ms   205 ms   205 ms  euroaccess-ltd.demarc.cogentco.com [149.6.128.82]
 11   204 ms   206 ms   206 ms  v402.R2.NL1.a2webhosting.com [209.124.94.239]
 12   203 ms   208 ms   204 ms  68.66.247.187.static.a2webhosting.com [68.66.247.187]

Trace complete.
```

```
C:\Users\A511221>tracert customersrus.co.uk

Tracing route to customersrus.co.uk [68.66.247.187]
over a maximum of 30 hops:

  1     5 ms     2 ms     1 ms  my.jetpack [192.168.1.1]
  2     *        *        *     Request timed out.
  3   268 ms    79 ms   115 ms  192.168.21.13
  4     *        *        *     Request timed out.
  5    76 ms    62 ms    60 ms  192.168.30.4
  6    98 ms    56 ms    62 ms  82.114.167.61
  7   154 ms    79 ms    69 ms  82.114.160.6
  8     *      168 ms   201 ms  82.114.164.18
  9   201 ms     *      171 ms  mei-b5-link.ip.twelve99.net [62.115.148.118]
 10     *        *      268 ms  prs-bb1-link.ip.twelve99.net [62.115.124.54]
 11   316 ms   201 ms   713 ms  adm-bb3-link.ip.twelve99.net [62.115.134.96]
 12   156 ms   147 ms   145 ms  adm-b10-link.ip.twelve99.net [62.115.120.227]
 13   260 ms   403 ms   407 ms  a2hosting-svc080530-ic370345.ip.twelve99-cust.net [62.115.145.217]
 14   776 ms   302 ms   306 ms  209.124.94.237.static.a2webhosting.com [209.124.94.237]
 15   243 ms   302 ms   199 ms  68.66.247.187.static.a2webhosting.com [68.66.247.187]
```

Findings in tracert:

After the local ISP, other country hop in atlas.cogentco.com domain (ISP: Cogentco) caused the biggest delay, the average duration is 121.41ms.

[CUSTOMERSRUS.CO.UK]
NAMESERVERS AND REGISTERED CONTACT

- A2 Hosting web hosting nameservers (nslookup / dig)

Name servers:
ns1.a2hosting.com
ns2.a2hosting.com
ns3.a2hosting.com
ns4.a2hosting.com

- MX record (nslookup / dig)

```
customersrus.co.uk.    5    IN    MX    0 mail.customersrus.co.uk.
```

Based the IP ping result, showed that the mail server hosting in A2 Hosting

```
Ping mail.customersrus.co.uk [68.66.247.187]
```

- Registered contact (whois)

Registrar:

eNom LLC [Tag = ENOM]

URL: http://www.enom.com

Results returned from whois.arin.net:

OrgName: A2 Hosting, Inc.

OrgId: A2HOS

Address: P.O. Box 2998

City: Ann Arbor

StateProv: MI

PostalCode: 48106

Country: US

RegDate: 2004-03-16

Updated: 2021-10-13

Comment: http://www.a2hosting.com

Ref: https://rdap.arin.net/registry/entity/A2HOS

[CUSTOMERSRUS.CO.UK] WEBSITE HOSTED

- A2 Hosting, Inc.
  - United States of America (Ann Arbor)
  - Netherlands (Amsterdam)
- Ref: https://www.iplocation.net/ip-lookup

Geolocation data from IP2Location (Product: DB6, updated on 2021-11-1)

IP Address	Country	Region	City
68.66.247.187	United States of America	Michigan	Ann Arbor
ISP	**Organization**	**Latitude**	**Longitude**
A2 Hosting Inc.	Not Available	42.2288	-83.7359

Geolocation data from ipinfo.io (Product: API, real-time)

IP Address	Country	Region	City
68.66.247.187	Netherlands	North Holland	Amsterdam
ISP	**Organization**	**Latitude**	**Longitude**
A2 Hosting, Inc.	A2 Hosting, Inc. (a2hosting.com)	52.3740	4.8897

DISCUSS THE RESULTS

- **Did you have any issues or challenges with the scans?**

  1. There were discrepancies between results produced from the traceroute, such as number of hobs and delay on the route.
  2. Two IP location found (United States – Netherlands/Amsterdam)
  3. Limited information on the domain registration and the registered contact

DISCUSS THE RESULTS

- **How did you overcome them?**

  Using online tools such as ICANN LOOKUP https://lookup.icann.org/lookup (to find registered contact) and WHOIS https://who.is/whois/customersrus.co.uk (to find registrar and Name servers) and https://www.findip-address.com/ (to find Hosting name and location)

- **How will they affect your final report?**

  Depending on one scan tool would be not enough to get the complete information about the target, using few scan tools which will be needed to conduct a proper website vulnerability assessment.

TEAM ACTIVITY

- **A2 Hosting, Inc. provided solutions to prevent attack and abuse:**
  - Google reCAPTCHA - bot detection
    - Affect: Testing the website with lower level
  - Temporarily banned IP addresses
    - Affect: Unable to send too much request and require to change IP address if blocked
  - SSL
    - Affect: Packet or traffic capture may not able to get information
- References:
  - https://www.a2hosting.com/kb/security/temporarily-banned-ip-addresses
  - https://www.a2hosting.com/kb/security

Q&A