A scanning task was performed on an assigned website called “https://loadedwithstuff.co.uk” from South Africa - Johannesburg with basic scanning tools such as *traceroute, mtr*, *dig*, *nslookup, whois, nmap*and *telnet*. Various results were obtained and analysed as indicated in the screenshots attached.

*tcptraceroute* on port 80 was used on an Apple MacBook computer which yielded 13 hops to the destination, this was confirmed by executing an *mtr* (mytraceroute) which indicated 30% packet loss from hop 2 to hop 3. It was observed that the largest delay was from South Africa to London, with a round trip time (RTT) for a packet increasing from 6.9ms to 179.3ms (hop 7) respectively. The average delay for hop 7 was 179.2ms. This delay is expected as the connectivity average latency is around 140ms if SEACOM cables are used as a transport medium between the two countries (SEACOM, 2021). Name servers translate domain names into IP addresses or vice versa (A2 Hosting, 2021). The name servers (NS) identified were ns1.a2hosting.com, ns2.a2hosting.com, ns3.a2hosting.com and ns4.a2hosting.com; obtained by utilising the *dig* command. The online *whois* tool was used to obtain the registered contact details (various contacts at a2hosting.com) as indicated in the screenshots attached. The mail record (mail.loadedwithstuff.co.uk) was identified using *nslookup*. The website was found to be hosted by A2HOSTING in Amsterdam, Netherlands using the hosting checker online tool (Hosting Checker, 2021).

In addition, *nmap* was used to determine open ports, with the tools mentioned above it is relatively easy for attackers to fingerprint servers and launch attacks on the protocols identified (McNab, 2017). For example, knowing that port 80 is currently open – one can execute the *telnet*command and issue a *HEAD / HTTP/1.0*request – this reveals that the server is running *Apache* while *nmap* reveals a PostgreSQL database installed. No issues were observed in obtaining the above-mentioned results.

List of References

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Graphical user interface, text

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Graphical user interface, application, Teams

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