Throughout this discussion, students have used command-line scanning tools to investigate their assigned websites. To complete their investigations, students mainly used the tools traceroute, dig, whois, host, and netstat, along with websites to find the geolocation of the website. Some variations were reported in findings- Justus (2021) identified the website staffmatters.co.uk as being hosted in the United States of America, while Edgell (2021) found that the same website was hosted in Amsterdam. After checking the given IPs in both posts using IPGeoLocation (maldevel, 2016), I would say that the difference in findings is likely the result of Justus finding a range of IPs, with some addresses in that range being located in the United States, while others in that range were located in Amsterdam, including the website under investigation. It is worth noting, however, that there can be other causes for IP geolocation being inaccurate (Luna, 2021).

Students also discussed how these tools would apply to use in a real-world setting. I expanded on my results by noting that the use of load balancers could lead to inconsistent results during scanning, to which Smirnov (2021) replied that load balancers exist at two levels of the OSI networking model- levels 4 and 7. Notably, DNS load balancers (the ones located at level 4 of the OSI model), are primitive and could increase the amount of damage done by an attacker if they know how to detect a DNS load balancer. Smirnov also listed some tools which are able to assist in identifying load balancers. Additionally, I also found examples of load balancers creating new vulnerabilities.

Lastly, many students noted that the exact owner of the website could not be identified via whois. This is primarily due to GDPR regulations, and this policy might become something which will hinder legal proceedings and investigations in the long term (Villar, 2022).

**References**

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