

From the three experiments, I found that mydig.py query resolution took longer for every website. One of the main reasons for this is how mydig.py handled CNAME resolution in comparison to how the other 2 servers did. That is, mydig.py took longer to resolve on average partly because local and google's DNS do not attempt to fully resolve CNAMES while mydig.py does.

Another reason is that mydig.py does not cache results whilst the other 2 servers do. As these sites are very popular, the likelihood that they have been cached in both local and Google's DNS is very high.

This caching could explain another key result: that being that my local DNS was the quickest to resolve <a href="www.apple.com">www.apple.com</a>, while google's DNS was the quickest to resolve <a href="www.google.com">www.google.com</a>. While the latter makes sense due to Google owning this domain, my local DNS was only a few ms slower on average. This similarity could be attributed to the caching that both servers do along with geographical location amongst other factors.