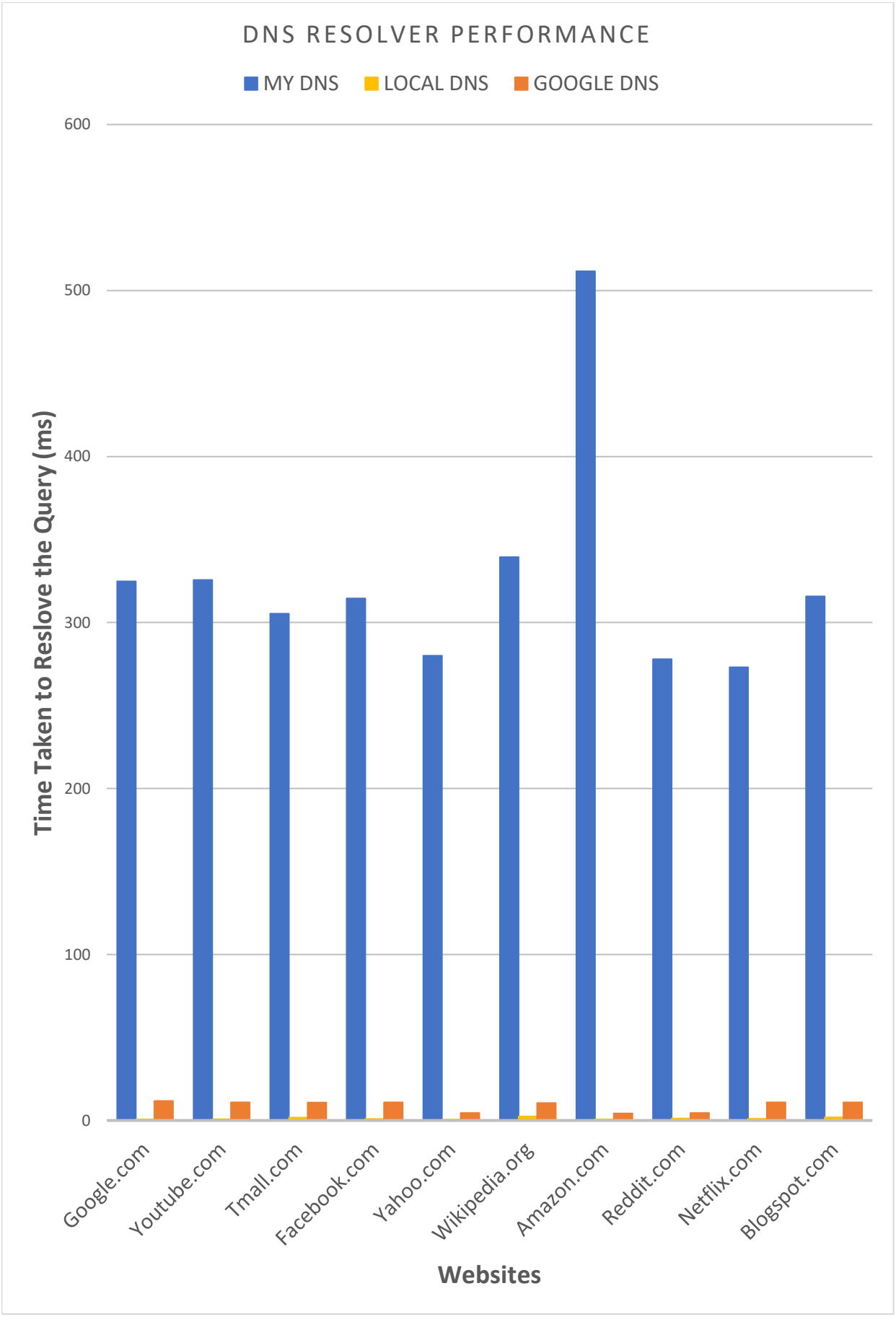
DNS RESOLVER PERFORMANCE
MY DNS
LOCAL DNS
GOOGLE DNS
600
500
400
300
200
100
0
Time Taken to Reslove the Query (ms)
Google.com
Youtube.com
Tmall.com
Facebook.com
Yahoo.com
Wikipedia.org
Amazon.com
Reddit.com
Netflix.com
Blogspot.com
Websites

Average Query Time (ms)										
	Google .com	Youtube .com	Tmall .com	Facebook .com	Yahoo .com	Wikipedia .org	Amazon .com	Reddit .com	Netflix .com	Blogspot .com
my DNS	324.8	325.6	305.4	314.5	280	339.4	511.7	277.9	273	315.7
Local DNS	0.7	0.8	1.7	0.9	0.5	2.5	0.7	1.2	1.1	1.9
Google DNS	11.8	10.9	10.8	11	4.5	10.5	4.3	4.5	11	10.9

75th Percentile Query Time (ms)										
	Google .com	Youtube .com	Tmall .com	Facebook .com	Yahoo .com	Wikipedia .org	Amazon .com	Reddit .com	Netflix .com	Blogspot .com
my DNS	338	348	337	335	289	360	528	299	291	335
Local DNS	1	1	1	1	1	1	1	1	1	1
Google DNS	12	11	11	12	5	11	5	5	11	11

25th Percentile Query Time (ms)										
	Google .com	Youtube .com	Tmall .com	Facebook .com	Yahoo .com	Wikipedia .org	Amazon .com	Reddit .com	Netflix .com	Blogspot .com
my DNS	304.25	317.5	277.5	294.75	262.25	317.25	497	260.75	259.25	289.75
Local DNS	0.25	0.25	0.25	1	0	1	0	0.25	0	1
Google DNS	11.25	10	10	10	4	10	4	4	11	11

My DNS has a much higher query time than the other DNS resolvers. This is most likely due to the fact that they are more sophisticated and can have protocols that improve their efficiency.

The reason why local DNS has such fast query times is because it has a cache. IP addresses to previously resolved domain names will be stored into the cache for a period of time, expiring when that time is up. Because of the cache, if the user decides to return to the website, the corresponding domain name's IP address will come from the cache and be reused instead of going through the process of resolving the website again.

Google's DNS also has fast query times, though not as fast as the local DNS. I noticed that for the websites, Yahoo.com, Amazon.com, and Reddit.com, that Google's DNS returns faster times from these websites than the others. This might mean that Google's DNS is geographically closer to these websites.

Some issues with my DNS that would make it slower are that I only choose one root server to send queries to (root server a) and that I choose the first IP address returned when sending another query. I may not be picking the geographically closest server which would increase my query time.