



The graph shows a significant discrepancy among the resolver query times as the one I built consistently performed worse than the local server and Google's. As seen in the graph, my own resolver would take a minimum of around ~50 ms to resolve a query through all cases, whereas Google and my local server would take less than 50 milliseconds no matter what. I believe this is because of the use of caches by my local machine's 'dig' function, which allows IP address fetching to be done at 0ms after the initial dig. As the DNS resolver I implemented does not include this caching capability, the average, 25<sup>th</sup>, and 75<sup>th</sup> percentile of query time was drastically increased.