



After running through 1000 iterations, the majority of my results took 2 - 3 hops to find. In the base-4 number system, there are 4^4 or 256 possible Pastry IDs. Of the 256 possible, our Pastry ID system only had 115. The chance of the Pastry ID belonging in my leaf set and routing table is very low because those values only represent 20 of the 115 possible values. However, since we our leaf sets contain data from $(n-2)$ and $(n+2)$ *ie. the 2 Pastry IDs greater than and less than our Pastry ID* there is a good chance that the Pastry ID can be found on the second hop because at this step, we now have access to the leaf sets of 1 of the 16 servers in our routing table. As we perform each hop, we get closer and closer to the desired Pastry ID, and each server is more likely to contain the Pastry ID in its leaf set or routing table.