

COP5615- Distributed Operating Systems

Project 3 Report – Pastry Protocol

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OBSERVATION

We experimented with different sizes of networks by varying the number of nodes. We also varied maximum number of requests per node and observed that average hops only depend on size of the network and do not vary with varying number of requests per node.

Our experimental data is as follows:

Number of Nodes	Number of Requests	Average Hops
1000	5	2.4946
1000	10	2.508
1000	100	2.50298
1000	1000	2.511743
100	5	1.688
100	10	1.676
100	100	1.7067
100	1000	1.68185
10	5	0.9
10	10	0.92
10	100	0.912
10	1000	0.9005

It is evident from the above mentioned data that although average hops vary significantly as we change number of nodes in the network, they do not show much variance with changing number of requests as number of nodes remain constant.