

CS425 Spring 2015

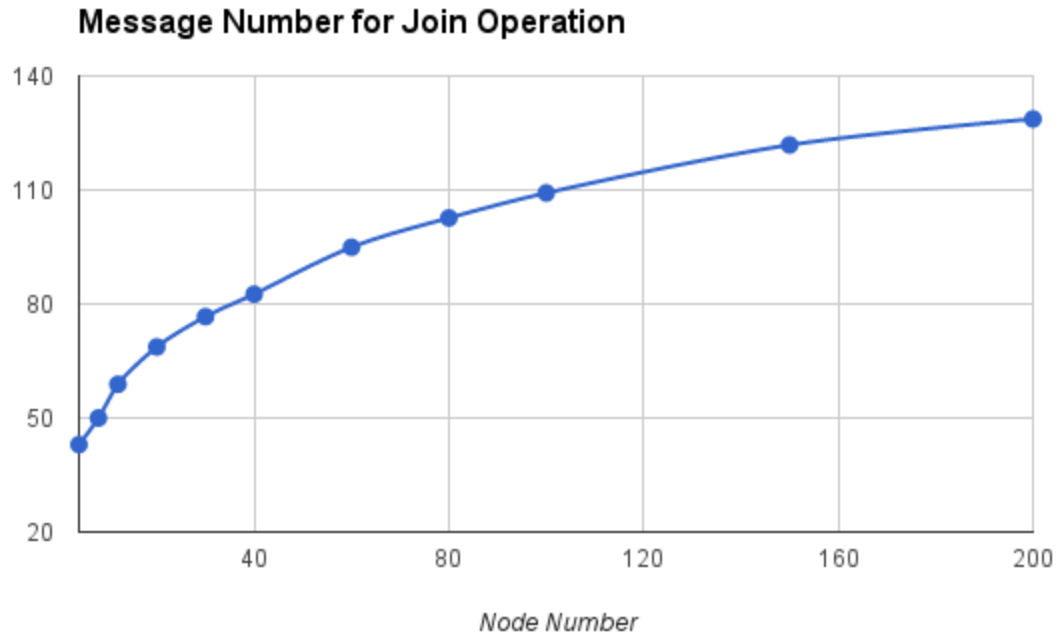
MP2: Chord: A Scalable Peer-to-Peer Lookup Service for Internet Applications

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1: Experimental results

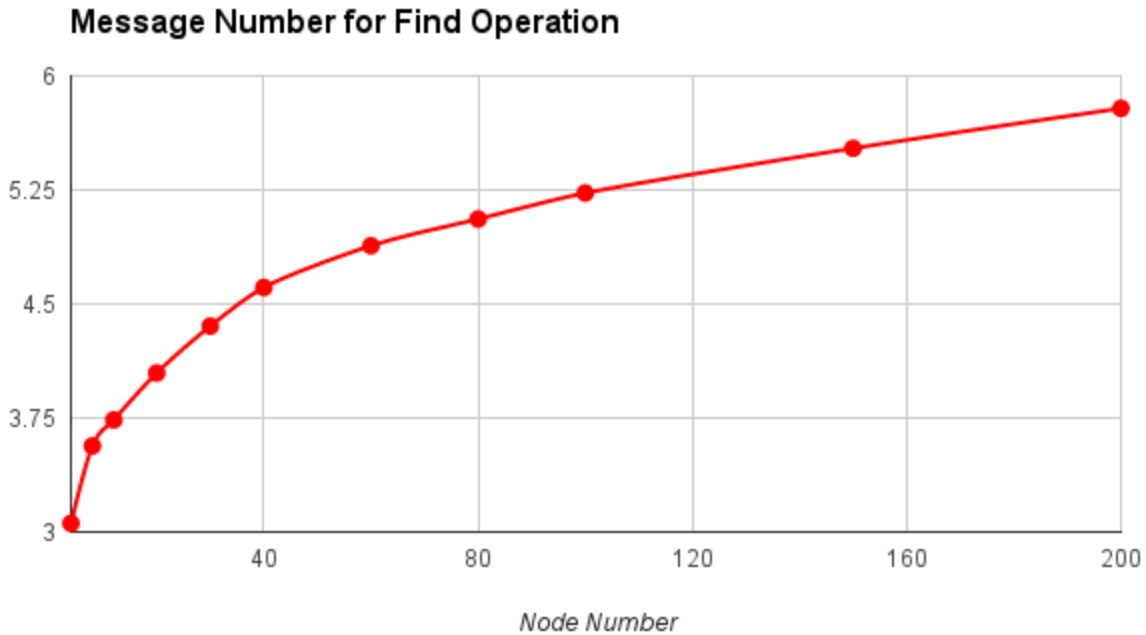
Results of node join:

node_number	test 1	test2	test 3	test 4	test 5	avg
4	179	168	173	177	163	43
8	429	388	392	392	399	50
12	742	704	697	705	684	58.86666667
20	1463	1311	1375	1390	1331	68.7
30	2358	2286	2297	2274	2285	76.66666667
40	3279	3361	3351	3251	3273	82.575
60	5575	5735	5800	5698	5671	94.93
80	8264	8321	8179	8078	8215	102.6425
100	10826	10862	11049	11013	10861	109.222
150	18094	18258	18261	18314	18455	121.8426667
200	25664	25847	25616	25691	25863	128.681



Results of find:

node_number	test 1	test2	test 3	test 4	test 5	avg
4	3391	2988	2941	2963	3000	3.0566
8	3689	3407	3526	3579	3630	3.5662
12	3761	3594	3732	3688	3911	3.7372
20	4021	4081	4092	4157	3878	4.0458
30	4307	4306	4379	4365	4414	4.3542
40	4596	4573	4741	4560	4574	4.6088
60	4896	4966	4865	4856	4832	4.883
80	5111	5059	4988	5079	5058	5.059
100	5269	5242	5218	5116	5306	5.2302
150	5522	5492	5527	5538	5542	5.5242
200	5808	5843	5838	5741	5705	5.787



2: Instructions of how to run the program

- (a): Compile the code by running `sh compile.sh` under the MP2 folder
- (b): Go in the bin directory, and run the code by `python test.py`
- (c): You can also directly run the java bytecode by `java Chord`. The terminal is listening to all required commands, like `join p`, `find p k`, `leave p`, `show p`, and `show all`.