Project Title

Team Members

Brian Borgia	800939320
Trevon Cornwell	801215017
David Gary	801325583
Lucky Kodwani	801276339
Joseph Mauney	801008273

Primary Sources

Chord[3]	
Ant Colony Systems[4]	
Kurose & Ross[2]	
Self-Chord[1]	

Introduction

When considering how to share real-time information across a networked environment, a number of concerns about information staleness must be addressed. Crude solutions like constant update polling and flooding are not viable in large-scale networks. This restriction led to the advent of smarter solutions like the Chord protocol, which creates a distributed hash table to store and retrieve information in $O(\log n)$ time.

Midterm Progress Report Goals

List our goals for where the project should be during the midterm progress report.

Final Demonstration Goals

List our goals for where the project will finish, what the demonstration will look like, etc.

References

- [1] FORESTIERO, A., MASTROIANNI, C., AND MEO, M. Self-chord: A bio-inspired algorithm for structured p2p systems. In *Proceedings of the 2009 9th IEEE/ACM International Symposium on Cluster Computing and the Grid* (USA, 2009), CCGRID '09, IEEE Computer Society, p. 44–51.
- [2] KUROSE, J. F., AND ROSS, K. W. Computer Networking: A Top-Down Approach Featuring the Internet, 6th ed. Addison-Wesley, Boston, MA, USA, 2012.
- [3] Stoica, I., Morris, R., Karger, D., Kaashoek, M. F., and Balakrishnan, H. Chord: A scalable peer-to-peer lookup service for internet applications. *SIGCOMM Comput. Commun. Rev.* 31, 4 (aug 2001), 149–160.
- [4] Yu, W.-J., And Zhang, J. Pheromone-distribution-based adaptive ant colony system. In *Proceedings* of the 12th Annual Conference on Genetic and Evolutionary Computation (New York, NY, USA, 2010), GECCO '10, Association for Computing Machinery, p. 31–38.