

Proposal

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1 Hypotheses

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1.1.1 Robustness and Fault-Tolerance

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1.1.4 Heterogeneity

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2.1 DHTs well understood

2.2 DHTs are Highly used for their intended purposed

2.2.1 Bittorrent, WoW

2.3 DHTs are being effectively leveraged for other things besides file sharing already

2.3.1 PaaS

2.3.2 Load Balancing in the cloud

2.3.3 Computing is a natural extension

3 Possible Experiments and Applications

3.1 Map Reduce

3.1.1 ChordReduce

3.1.2 Comparison of MapReduce paradigm on different DHTs

3.2 High End Computing

3.2.1 Metadata Management

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3.3 Graph Processing on a DHT

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3.3.2 Distribute the work for solving a graph on a DHT

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3.4 Machine Learning Problems on A DHT

3.4.1 Bayesian Learning

3.5 DHTs as a volunteer Platform