

Gossip-based Aggregation blah

Niklas Semmler, Jiannan Guo
KTH Royal Institute of Technology (Sweden)

Abstract

Motivated by increase of peer-to-peer network and *ad hoc* sensor networks, we study distributed algorithm, also known as gossip algorithm, which is for exchanging information and message dissemination. As aggregating network information and enabling local access to this information are crucial to manage a large scale networks, gossip-based aggregation facilitates management of networks in a completely decentralized manner. This study focuses on the extracting the relation between convergence speed and connectivity of graph, addressing several real network topologies.

Keywords

Gossip-based aggregation, performance

blah [1] [2]

Contents

1	Introduction	3
1.1	Background	3
2	Theoretical Analysis of Gossip-based Aggregation	4
2.1	Study of previous work	4
2.2	Applying to real network	4

1 Introduction

1.1 Background

[1]

2 Chapter 1

2.1 Gossip-based aggregation algorithm

Since peer-to-peer and *ad hoc* networks are becoming an upward trend, a considerable number of studies have been done regarding gossip-based algorithms. Analytical methods and simulations have been utilized to discuss the relations between performance of gossip protocols and topology of network, namely randomness, connectivity etc. This study is mainly based on the work of M.Jelasity, A.Montresor and O.Babaoglu [1], focusing on existing static networks of different topologies.

2.2 Applying to real network

References

- [1] Márk Jelasity, Alberto Montresor, and Ozalp Babaoglu. Gossip-based aggregation in large dynamic networks. *ACM Transactions on Computer Systems (TOCS)*, 23(3):219–252, 2005.
- [2] Laurent Massoulié, Erwan Le Merrer, Anne-Marie Kermarrec, and Ayalvadi Ganesh. Peer counting and sampling in overlay networks: random walk methods. In *Proceedings of the twenty-fifth annual ACM symposium on Principles of distributed computing*, PODC '06, page 123–132, New York, NY, USA, 2006. ACM.