Efficient Reconciliation and Flow Control for Anti-Entropy Protocols

Link to paper

This paper dives into some basics of gossip protocals, which are lightweight synchronous protocals for synchronizing state without a need for a strong consistency guarantees.

"First, it presents a new state reconciliation mechanism that is designed both for minimal CPU overhead and for situations in which only limited bandwidth is available (Section 3). Second, it proposes and analyzes a flow control scheme for gossip."

GOSSIP BASICS

Two classes:

- Anti-entropy gossip until newer information arrives
 - More reliable
- Rumer-mongering gossip for set period of time
 - Some probability of conveying information

3. RECONCILIATION

3.1 PRECISE RECONCILITION

"Note that, if implemented, both these orderings would require a synchronized clock among the members and that all updates be timestamped with this clock."

3.2 SCUTTLEBUTT RECONCILIATION

DONE!!!! NEED TO WRITE NOTES!!!!