

Recitation 20 — Raft

The basics of Raft

There is really no reference better than the two links we provide along with the recitation assignment:

- An [introduction](#) to distributed consensus
- A [visualization](#) of Raft

After watching the animations in those links, and reading the paper, you should be able to answer the following:

- Leader election
 - Each candidate votes for itself and broadcasts its request; what is in the request?
 - For a machine to respond to a vote, what needs to happen?
 - How does a machine win an election?
 - What happens if no one wins?
 - How does a leader continue being a leader?
- Failures
 - What happens when a leader fails?
 - What happens when a follower fails?
 - What happens when a candidate fails?
 - What happens when there is a network partition?
- For all of those failures: what happens after the machine and/or network recovers?
 - E.g., what happens when a leader fails and then later comes back online?

Discussion

- What does it mean to be an “understandable” consensus algorithm? Understanding by whom?
- Is Raft understandable?
- Is understandability a worthwhile design goal?