

Proposers

1. Select a new proposal number, including server ID for uniqueness.
2. Send Prepare requests to acceptors.
3. If a majority of acceptors respond, send Accept requests to acceptors with the same proposal number.
4. If a majority of acceptors respond, the value in the Accept request is committed.

Prepare Request

Arguments:

proposal proposal number

Results:

acceptedProposal number of highest proposal accepted by this acceptor, if any

acceptedValue value of highest proposal accepted by this acceptor

Receiver implementation:

If proposal is higher than any number in a previous Prepare or Accept request, then save proposal and respond; otherwise do not respond.

Acceptors

Process Prepare and Accept requests from proposers.

Accept Request

Arguments:

proposal proposal number
value if proposer received any acceptedValues in Accept responses, must be the value corresponding to the highest acceptedProposal; otherwise proposer may pick arbitrary value

Results: none

Receiver implementation:

If proposal is higher than any number in a previous Prepare or Accept request, then save proposal and value and respond; otherwise do not respond.