

Replication

6.033 2008 Lecture 20

Paxos Consensus Protocol

leader:

choose n

prepare(n) to all

if prepare_ok(n_a, v_a) from majority:

$v' = v_a$ with max n_a , else client op

accept(n, v') to all

if accept_ok(n) from majority:

done! chosen value is v'

prepare(n):

if $n > n_p$:

$n_p = n$

reply prepare_ok(n_a, v_a)

accept(n, v):

if $n \geq n_p$:

$n_a = n$

$v_a = v$

reply accept_ok(n)