Maekawa 2.0 (modifications to 1.0)

Site State (at site i):
- Priority queue of requests (ordered by Totally Ordered Lamport Timestamps)
- Locked: boolean
- LockerID: Site that has obtained i’s lock
- LockerTS: Timestamp of LockerID’s request

When \(p_j\) receives REQ(i, TS)
- If not Locked
  - Send REPLY to i
  - Locked = true
  - LockerID = i
  - LockerTS = TS
- Else
  - Enqueue REQ(i,TS)
  - If TS > any other timestamp in queue OR LockerTS
    - Send FAILED to i
  - ELSE
    - Send INQUIRE to LockerID

If \(p_i\) receives an INQUIRE and at least one FAIL
- Send RELINQUISH(i) to processes that sent \(p_i\) an INQUIRE

When \(p_j\) receives RELINQUISH(i)
- Enqueue REQ(i,LockerTS)
- Locked = false
- LockerID = null
- LockerTS = null
- If queue not empty
  - REQ(k,TS_k) = dequeue
  - LockerID = k
  - LockerTS = TS_k
  - Locked = true
  - Send REPLY to \(p_k\)