

16. RSM & PAXOS

- Why Replication(P8)
- Replication Consistency types(P9)

Pessimistic Replication

- overview(P11)
- Single-copy Consistency(P12)
- Replicating a Server: Quorum(P15)
- Majority in Distributed Systems(P17)
- Inconsistency of Replicas(P18)

Replicated State Machines (RSM)

- overview(P20, P24)
- Primary/Backup Model and e.g.(P25-31)
- View Server and e.g.(P32-36)
- Rules when Facing Network Partitions(P37)
- Network Partitions example(P38-41)

PAXOS

Single-decree Paxos: Agree on a single value

- overview(P47-48)
- General Approach(P49)
- Political Science 101(一些概念)(P50)
- Paxos in Action (P51-56)
- Paxos Setup (P57)

16. RSM & PAXOS 1

- Paxos Pseudo-code (P58-61)
- Inside of Paxos(P62-63)
- Does single-decree Paxos works fine for our view server example?(next P19)

Multi-Paxos: Agree on a sequence of values(next)

- Multi-Paxos builds on top of the basic Paxos(P22)
- Basic Multi-Paxos(P24-27)
- Basic Multi-Paxos is correct but inefficient(P29)
- Multi-paxos uses a distinguished proposer (leader)(P30)
- Not relying a single leader simplifies user implementation(P31)
- Benefits of leader election: prepare message batching(P32-33)
- Multi-paxos can leave the whole in the log(P34)

•

16. RSM & PAXOS 2