

Distributed Systems – Fault Tolerance

Lab 5

2020/2021

Passive Replication

Taking advantage of a group communication toolkit as a view synchronous protocol:

1. Implement separate primary and backup server programs using *sockets* or *Atomix* for client/server communication and *Spread* for update propagation. Test failure of backup servers.
2. Combine with dynamic leader election.
3. Implement state transfer to integrate new servers concurrently with client requests, taking advantage of view installation.

Learning Outcomes Apply passive replication based on group communication. Recognize the trade-offs in passive replication. Explain how passive replication takes advantage of view synchrony.