

JPaxos - State Machine Replication in Java

Technical Report

Nuno Santos, André Schiper
EPFL, Switzerland

Jan Konczak, Tomek Zurkowski, Pawel Wojciechowski
Poznan University of Technology, Poland

November 8, 2010

1 Introduction

2 Protocol

Algorithmic description of the protocol. Describe data structures that are relevant to the algorithms, like the replicated log. But no implementation details.

2.1 Paxos Protocol

2.2 Leader Election

2.3 Catch-up

2.4 Snapshot

2.5 Recovery

2.6 Optimizations

2.6.1 Concurrent Instances

2.6.2 Batching

3 Architecture/Implementation

Implementation details.

3.1 Networking

3.2 ...

4 Experimental Evaluation

5 Applications

6 Related Work

"Paxos made live" [2]

"Paxos for system builders" [1]

7 Conclusion

References

- [1] Y. Amir and J. Kirsch. Paxos for system builders: An overview. In *Large-Scale Distributed Systems and Middleware (LADIS 2008)*, New York, USA, September 2008.
- [2] T. D. Chandra, R. Griesemer, and J. Redstone. Paxos made live - an engineering perspective. In *PODC '07: Proceedings of the twenty-sixth annual ACM symposium on Principles of distributed computing*, pages 398–407, New York, NY, USA, 2007. ACM Press.