

Errors found in distributed protocols

Protocol	Reference	Violation	Counter-example
Raft	[Ong14]	safety ¹	[AZ15; Ong15]
Raft	[OO14; Ong14]	liveness	[HA20]
Chord	[Sto+03; LBK02]	liveness ²	[Zav12; Zav17]
Pastry	[RD01]	safety	[AMW16; AMW18]
Zyzzyva	[Kot+07; Kot+10]	safety	[Abr+17]
FaB Paxos	[MA05; MA06]	liveness	[Abr+17]
EPaxos	[MAK13]	safety	[Sut20]
DPaxos	[NAE18]	safety	[Whi+21]
JPaxos	[Koń+11]	safety	[Mic+17]
Multi-Paxos ³	[CGR07]	safety	[Mic+17]
VR Revisited	[LC12]	safety	[Mic+17]

(Reference list starts on the next page.)

¹The single-server membership change algorithm is described in Ongaro’s PhD thesis. The paper version of Raft uses joint consensus and does not have this error.

²Eventual reachability is Chord’s key correctness property.

³As described in Paxos Made Live.

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