Fault-Scalable Byzantine Fault-Tolerant Services

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Overview

- Authors present Query/Update (quorum based) protocol for making a system Byzantine Fault-Tolerant that can be scalable in presence of faults
- Other protocols have degraded performance if more faults are tolerated
- Q/U only decreases performance (req/sec) in 36% vs 83% of replicated state machine

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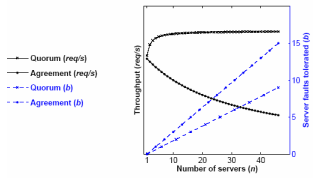
Efficiency and scalability

- Q/U protocol requires 5b+1 servers to tolerate b Byzantine faulty servers
- Most agreement based approaches require 3b+1 servers.
- Servers costs are declining but failure costs not.
- Agreement based require servers to process all requests, quorum not



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