

# A study of Byzantine fault-tolerant algorithms

Author goes here

Institute  
Department

Date goes here

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# Fault Tolerance

*“A distributed system is one in which the failure of a computer you didn’t even know existed can render your own computer unusable.”*

Leslie Lamport

# Failure models

- Crash failures
- Omission failures
- Timing failures
- Response failures
- Byzantine (arbitrary) failures

# Algorithms

- 1 Practical Byzantine Fault Tolerance
- 2 Query/Update (Q/U)
- 3 BFT2F
- 4 Zyzzyva
- 5 CheapBFT

# Algorithms - Step by step

## 1 Practical Byzantine Fault Tolerance

# Algorithms - Step by step

- 1 Practical Byzantine Fault Tolerance
- 2 Query/Update (Q/U)

# Algorithms - Step by step

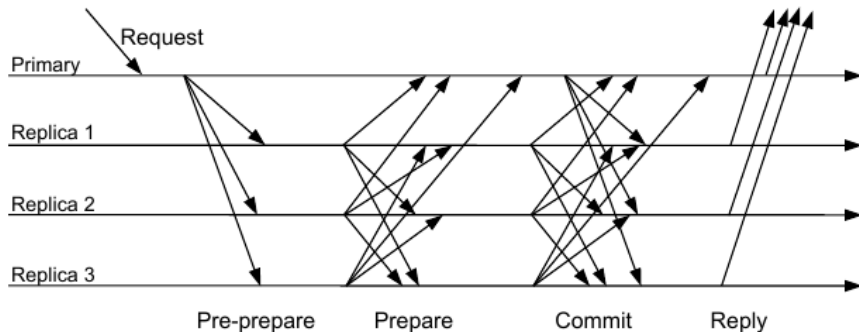
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# Algorithms - Step by step

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# Practical Byzantine Fault Tolerance



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Example

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# End of Presentation

Questions?