## Replication \& Fault Tolerance



Replica


## Passive Replication



## Active Replication



## Gossip Architecture



## Network Partitions



## 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


## Redundancy



## Three Byzantine Generals



## Faulty Commander



## Four Generals



## Faulty Commander (four generals)



