

Partner  
form

CSE 452

Distributed Systems

More

Primary Backup

# Why not just use TCP?

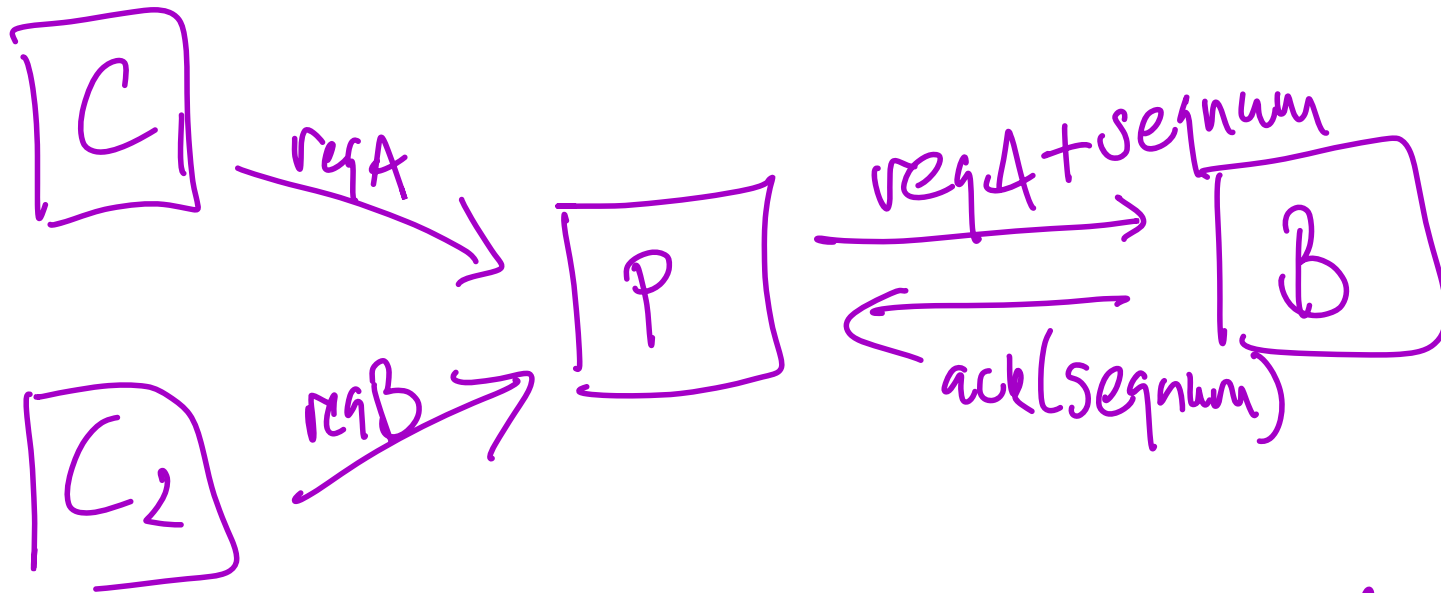
TCP claims:

ordered reliable message delivery

disconnection

- network cuts out
- machine crashes

# Primary Backup

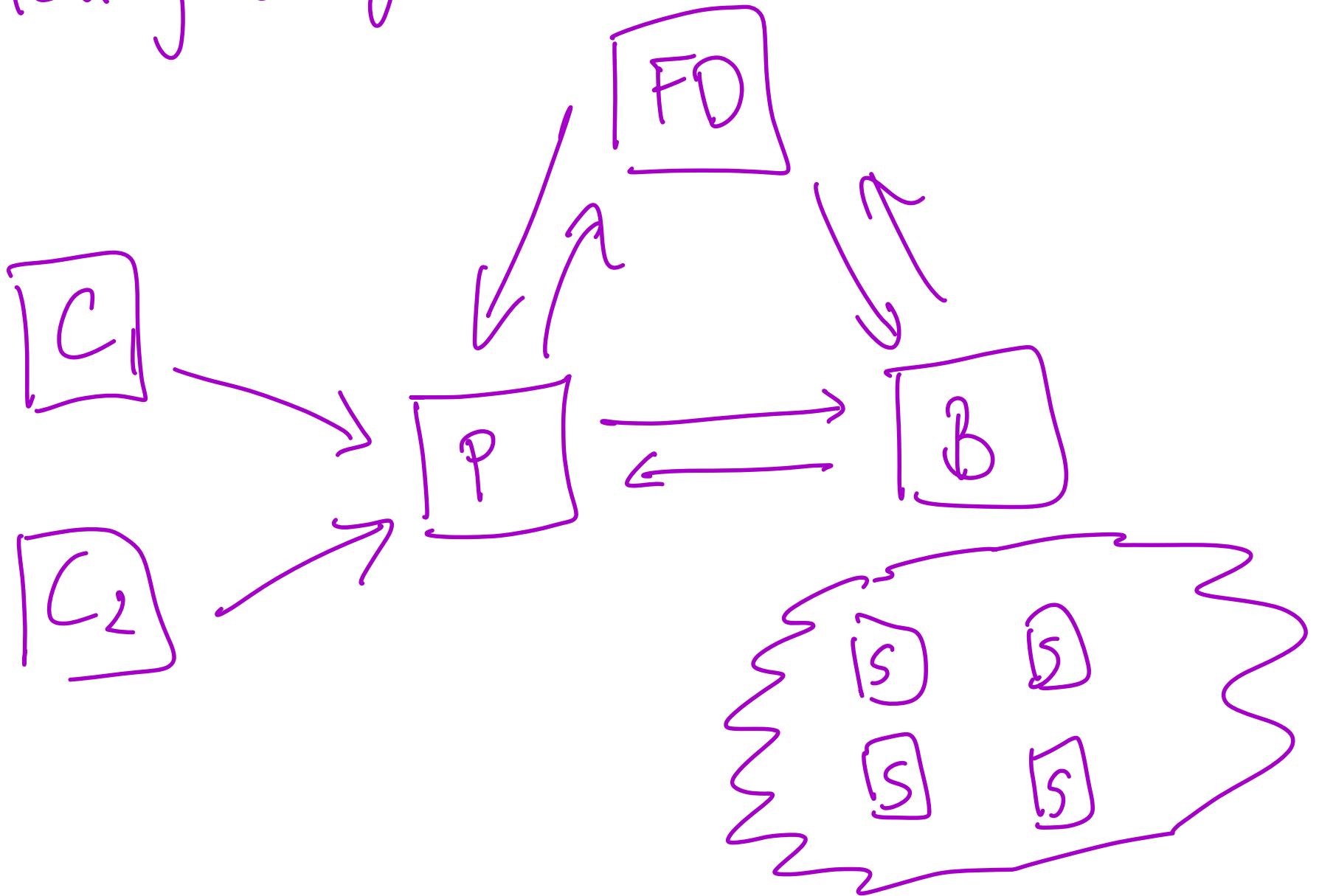


- Primary monitors backup: if B has failed then P becomes single server
- backup monitor primary: if P has failed, B becomes single server, tell clients

# Split Brain Problem

- two subsystems operating independently but "claiming" to be whole system

- New backup has no data
- telling everyone who P and B are



View Server

View:  
version = 1  
primary = S<sub>1</sub>  
backup = S<sub>2</sub>  

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V = 2  
P = S<sub>1</sub> B = S<sub>3</sub>

C<sub>1</sub>



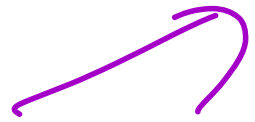
P  
S<sub>1</sub>



B  
S<sub>2</sub>



C<sub>2</sub>



S<sub>3</sub>

View: who P is, who B is  
and a version number  
(view number)