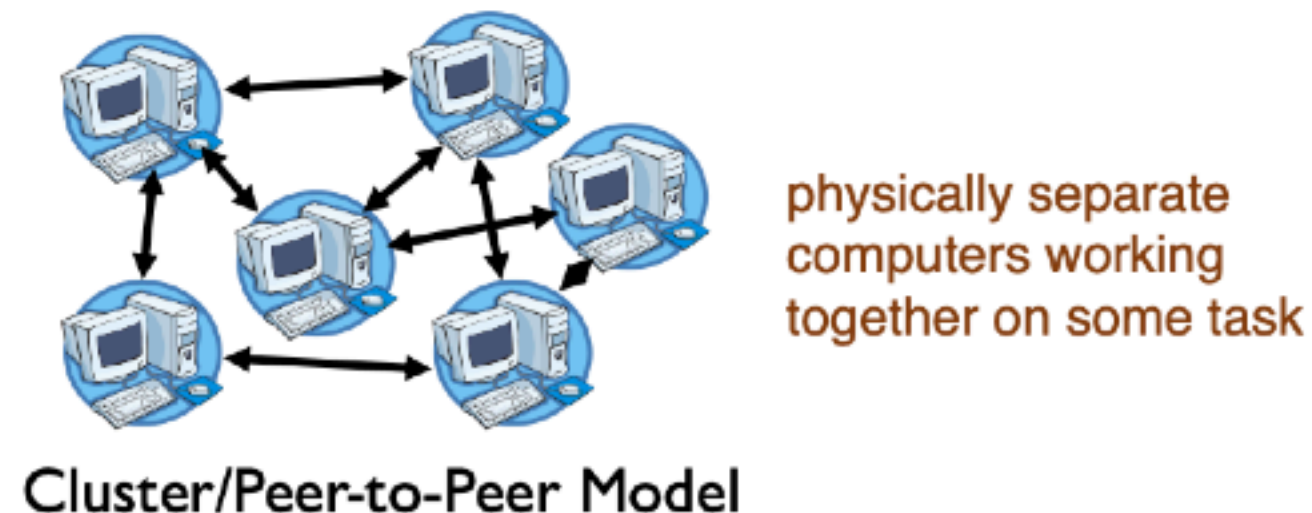
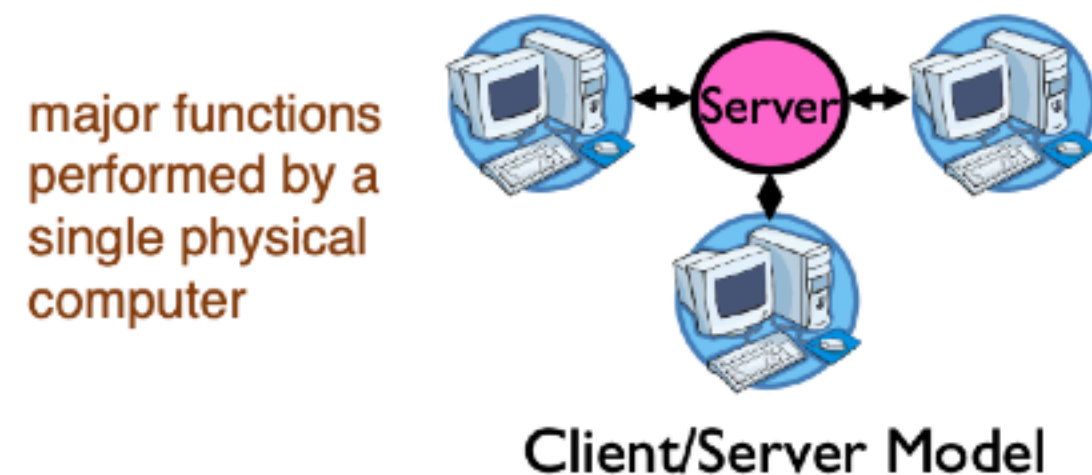


# Forms & models of distributed systems?

Degree of integration

- **Loosely-coupled**  
internet applications (e.g email, web, FTP, SSH)
- **Mediumly-coupled**  
remote execution (e.g RPC), remote file system (e.g NFS)
- **Tightly-coupled**  
distributed file systems (e.g. AFS)



# Why distributed systems?

Why do we want distributed systems?

- Performance - parallelism across multiple nodes
- Scalability - by adding more nodes
- Reliability - leverage redundancy to provide fault tolerance
- Cost - cheaper and easier to build lots of simple computers
- Control - users can have complete control over some components
- Collaboration - much easier for users to collaborate through network resources