

# Typical Distributed Systems Design Goals

- Common Goals:
  - **Heterogeneity** – can the system handle a large variety of types of PCs and devices?
  - **Robustness** – is the system resilient to host crashes and failures, and to the network dropping messages?
  - **Availability** – are data+services always there for clients?
  - **Transparency** – can the system hide its internal workings from the users? (warning: term means the opposite of what the name implies!)
  - **Concurrency** – can the server handle multiple clients simultaneously?
  - **Efficiency** – is the service fast enough? Does it utilize 100% of all resources?
  - **Scalability** – can it handle 100 million **nodes** without degrading service? (nodes=clients and/or servers) How about 6 B? More?
  - Security – can the system withstand hacker attacks?
  - **Openness** – is the system extensible?