

# “Important” Distributed Systems Issues

- No global clock; no single global notion of the correct time (asynchrony)
- Unpredictable failures of components: lack of response may be due to either failure of a network component, network path being down, or a computer crash (failure-prone, unreliable)
- Highly variable bandwidth: from 16Kbps (slow modems or Google Balloon) to Gbps (Internet2) to Tbps (in between DCs of same big company)
- Possibly large and variable latency: few ms to several seconds
- Large numbers of hosts: 2 to several million