

### What?

What is a distributed system?

- Give me some examples.
- Give me a definition.

"..one in which hardware or software components located at networked computers communicate and coordinate their actions only by message passing"

### Why?

# Different from..

Why do we build distributed systems?



2/1

 $1 \, / \, 1$ 

# ConcurrencyCommunicationImage: ConcurrencyImage: Concurrency<td

# Messages

Time

5/1







6/1

### Security

### Coordination







### 9/1

### Failure

# Handle the problems

- How can we solve
  - communication,
  - security and,
  - coordination,

... in a world with failure and no notion of time?

### Can we hide all problems?

10 / 1