

Clocks:

Definition of causal ordering, be able to describe an order of events consistent with a flow diagram

Why global state is hard to determine, multiple consistent global states in terms of order of events in a flow diagram

Theorem 18.1

Clock synchronization problems:

- Clock drift

- Variable delay

- Faulty servers

- Malicious servers

Dolev requirements for correct time

- Monotone increasing

- 1) Logical clocks stay “close together”

- 2) Logical clocks stay within a linear envelope of the duration timers.

Simulation

Definition

Know the significance

Given a relation between states of two automata, be able to show that it is or is not a simulation relation

Spanning Tree

Breadth-first search

Min-weight spanning tree

- Synchronous

- Adaptations for Asynchronous

Cisco Spanning Tree

MANET

Motivations and limitations

Hidden terminal and exposed terminal problems

Address allocation and routing problems (differences from wireline)

Important algorithms:

- MPR

- JAVeLEN

Modeling a wireless channel

Modeling node movement