CSE 486/586 Distributed Systems
Mid-Semester Overview

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We’re at a Mid-Point: What We’ve Discussed So Far

• Main communication infrastructure: the Internet
• Communication between two processes
  – Socket API
• Failure detection
• Concept of time in distributed systems
• Communication between multiple processes
  – Multicast algorithms
• Organization of distributed systems
  – Server-client
  – Peer-to-peer, DHTs
• Impossibility of consensus

The Other Half of the Semester

• Consensus algorithms: mutual exclusion, leader election, paxos
• Distributed storage basics: transactions and consistency
• Distributed storage case studies: Amazon Dynamo, NFS, Facebook Haystack, Facebook f4
• Remote procedure call
• Security
• BFT (Byzantine Fault Tolerance)

CSE 486/586 Administrivia

• Midterm: 3/13 (Wednesday) in class
  - Everything up to the last lecture
  - 1-page cheat sheet is allowed.
  - Blue or black ink pen
• Best way to prepare
  - Read the textbook & go over the slides.
  - Go over the previous exams.
• PA2-B due this Friday
  - Please remember that we’ll be running code similarity checkers (automatic F if found too similar).

Acknowledgements

• These slides contain material developed and copyrighted by Indranil Gupta (UIUC).