

COT 4600 Operating Systems Spring 2011

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Office hours: Tu-Th 6:00-7:15 PM

Lecture 5 – Thursday, January 27 2011

- Last time:
 - Discussion of the paper “Architecture of Complexity” by H. A. Simon
 - Modularity, Abstractions, Layering, Hierarchy
- Today:
 - Discussion of the paper “Hints for Computer Systems Design” by Butler Lampson.
 - Layering and Hierarchy for Coping with Complexity
 - Complexity of Computer Systems
 - Bandwidth and Latency
 - Iteration
 - Names and The Basic Abstractions
 - Memory. Critical Properties of Memory Systems.
 - Read-Write Coherence
 - Before or After Atomicity
- Next time
 - Raid Systems

Layering for Coping with Complexity

- Layering □ building a set of successive functional entities with restricted communication patterns, a layer may only communicate with the layer below it and with the one above it.
- Examples: networking