Distributed Information Processing

21st Lecture

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Outline

- Possible Topics for Final
- Q&A
Possible Topics for Final

- Chandry’s “Snapshot” Algorithm
- Ordering Events with Vector Clocks
- Balance and Tradeoff among Communication, Processing, and Storage
- Memory Consistency Models
- Memory Coherence
- Choosing the Page Size in DSM
- DSM vs Message Passing
- Lazy Release Consistency
Possible Topics for Final Cont’d

- Location Transparency in DFS
- Large Cluster vs SM Machines
- GFS Consistency Model
- GFS Lease
- Choosing the GFS Chunk Size
- GFS Fault Tolerance
- Virtualization
- Fault Tolerance (TBE)
- IP vs Overlay Routing
Possible Topics for Final Cont’d

- Chord
- Tapestry
- Chord vs Tapestry
- Tapestry Routing & Object Location
- Techniques for Embedded Software
- Embedded Software Issues
- Context
- Security Violation Types
- Security Attack Methods
- Stack and Buffer Overflow
Possible Topics for Final Cont’d

- ATM PIN Security
- Capability vs Access Control List System
- Protected Subsystems
- Attacks & Countermeasures in WSNs
- Basic Security Concepts
- Symmetric vs Asymmetric Cryptographic Algorithms
- Digital Signatures
- Certificates
- PKI Example
- Security Holes in PKI
Possible Topics for Final Cont’d

- OMA DRM Example (TBE)
- Ontology
- Ontologies vs XML
- Latency Reduction vs Latency Hiding
- Critical Path Issues
- Method of Golden Sections
- Bandwidth, Delay, and Loss Adaptation
- Dynamic Adaptation Methods
- Hadoop & MapReduce Example