

Study Questions

"Distributed Operating Systems"

Ch 6: Distributed Shared Memory

Tanenbaum

CS 4210 Advanced Operating Systems

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PART 2: 6.4 Page-based DSM 6.5 Shared-Variable DSM

1. Tanenbaum says: "The idea behind DSM is simple: try to emulate the cache of a multiprocessor using the MMU and operating system software." Explain.
2. The "granularity" of a DSM system describes the size of the "shared unit". Is it a word? a block? a page? What's the right size? Describe some of the issues that effect the choice of granularity in a DSM implementation.
3. Why are invalidation protocols preferred over update protocols in DSM systems?
4. Describe the process of finding the owner of a page in a page-based DSM.
5. What's the difference between eager release consistency, lazy release consistency and entry consistency?