

1. Efficient Virtual Memory for Big Memory Servers

(1) Workloads that use a lot of memory experience more TLB miss than other workloads. In this paper, TLB miss was removed by mapping the virtual memory of the process directly

(2)

(+): Direct segments eliminate almost all TLB misses

(-): Many TLB miss occur when using large pages

(3) What is the relationship between the size of the swap area and the TLB miss?

2. Coordinated and Efficient Huge Page Management with Ingens

(1) Operating system support for huge pages. However, the OS does not use the huge pages efficiently. Ingens is a system for equitable management of huge page resources. Ingens can resolve high page fault latency, memory bloating, unfair huge page allocation and uncoordinated memory management.

(2)

(+): very low overhead