

[PATCH 1/1] Implement shared page tables

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This patch implements page table sharing for all shared memory regions that span an entire page table page. It supports sharing at multiple page levels, depending on the architecture.

Performance testing has shown no degradation with this patch for tests with small processes. Preliminary tests with large benchmarks have shown as much as 3% improvement in overall results.

For those familiar with the shared page table patch I did a couple of years ago, this patch does not implement copy-on-write page tables for private mappings. Analysis showed the cost and complexity far outweighed any potential benefit.

This version of the patch supports i386 and x86_64. I have additional patches to support ppc64, but they are not quite ready for public consumption.

The patch is against 2.6.13.

Dave McCracken

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