

Topics of interest from the MM summit

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What? Who? Why?

- Held as part of LSF/MM
- ~25 People
- Solve technical problems

Must succeed allocations

- Allocations can fail. Or can they?
- Culprits
- Implicit locking
- What was done?

Persistent memory

- ~400GB With the speed of RAM but survives a reset.
- Is it a block device? Or just memory?
- New instructions
- Huge pages?

Performance / scaling

- mmap_sem - “BKL”
- Performance regression testing
 - Marvin
- Many cores

Huge pages

- Transparent huge pages need a rewrite, and it's on the way!
- hugetlbfs is getting some love too.
- Huge pages for filesystems? Page cache?
- Compaction

Contiguous Memory Allocator (CMA)

- The MMU and you.
- Sets of problems.
- Lesser of two evils.

Memory Control Groups (memcg)

- Rich man problems
- Knobs and pulls
- Is there anything to discuss next year?

Heterogeneous memory management (HMM)

- In your living room, showing your movie!
- Too specific?
- Very slow progress, but we're getting there.

UserfaultFD

- Paging isn't always bad.
- Remote memory.
- Complex API.

Testing / Debugging

- Reproducing bugs.
 - Intel PT
- Catching bugs. Validation.
- Long road ahead.

Thank you

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