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Copy On Write, Get User Pages, and Mysterious Counters

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As we learned throughout the last decade (!), Copy On Write (COW) paired with Get User Pages (GUP) can be harder than it seems. Fortunately, it looks like that we might have both mechanisms working completely reliable in combination soon – at least for most types of anonymous memory.

In this talk, I'll explain recent changes to our GUP and COW logic for anonymous memory, how they work, where we stand, what the tradeoffs are, what we're missing, and where to go from here.

Also, I will talk about which mysterious counters are we using nowadays in our COW logic(s), what their semantics are, and what options we might have for simplifying one of them (hint: mapcount), and what the tradeoffs might be.

But also, what about the shared zeropage, private mappings of files, KSM ... ?

I agree to abide by the anti-harassment policy

Yes

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