

# Do we want OS transactions?

- Useful and widely applicable abstraction
- Too much complexity to add to the kernel?
- ~30% overhead for non-Tx code, ~500% for Tx code seems like a steep price to pay

# How to fix I/O and IPC?

- Here things get really interesting
- Hard to handle fully in kernel for general case
- Might even be impossible for some I/O devices (e.g. printer)
- Similar to Undo paper regarding inconsistencies in externalized state

# Other difficulties?

- Memory mapping operations in transactions
- Event queues (select,epoll)
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# Alternatives?

- “Ad-hoc” interfaces (e.g. `*at()` system calls)
- Lighter weight abstractions
- Atomic groups of system calls?

# Interaction with HTM

- limitations of HTM for OS transactions?
- could better HTM improve OS transactions?