Week 12 Critique

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1. [TxFS: Leveraging File-System Crash Consistency to Provide ACID Transactions](https://www.usenix.org/system/files/conference/atc18/atc18-hu.pdf)

This paper suggest TxFS(Texas Transactional File System). To give efficient crash consistency, this paper said file system should provide transaction. In TxFS, Atomicity, Consistency and Durability are guaranteed by existing ext4’s write-ahead log.

Unlike A, C and D, Isolation is guaranteed by new scheme and There are two schemes to provide Isolation; one is immediate and another one is delayed. Immediate scheme is used to provide page isolation and this scheme has three properties; Copy on write, Eager conflict detection, High scalability. Delayed scheme is used to provide Inode and dentry isolation. This scheme has two properties; Copy on read, Lazy conflict detection.

By using TxFS API, we can reduce expensive *fsync* operation and it makes good performance.