03 – An Empirical Evaluation of In-Memory Multi-Version Concurrency Control

1. Overview of Idea
   Multicore system can limit the throughput of MVCC because of large synchronization overhead. So, we should analyze bottlenecks of each design decision, and select proper schemes for modern hardware setting.

   de

2. Main Finding
   MVCC's throughput is related with version storage, workload-appropriate CCP, GC, and index management

3. Systems used and its Specifications
   Peloton is used. Modified in four parts of system below

   A. Index Management (physical pointer/logical pointer)
   B. Concurrency Control Policy (MVOCC, MV2PL, MVTO, MV)
   C. Garbage Collection Method (tuple-level, txn-level)
   D. Version Storage (append-only, time travel, delta storage)

4. Workloads evaluated
   TPC-C and YCSB are used, classified by # of attributes accessed, rate of write/read, rate of contention….