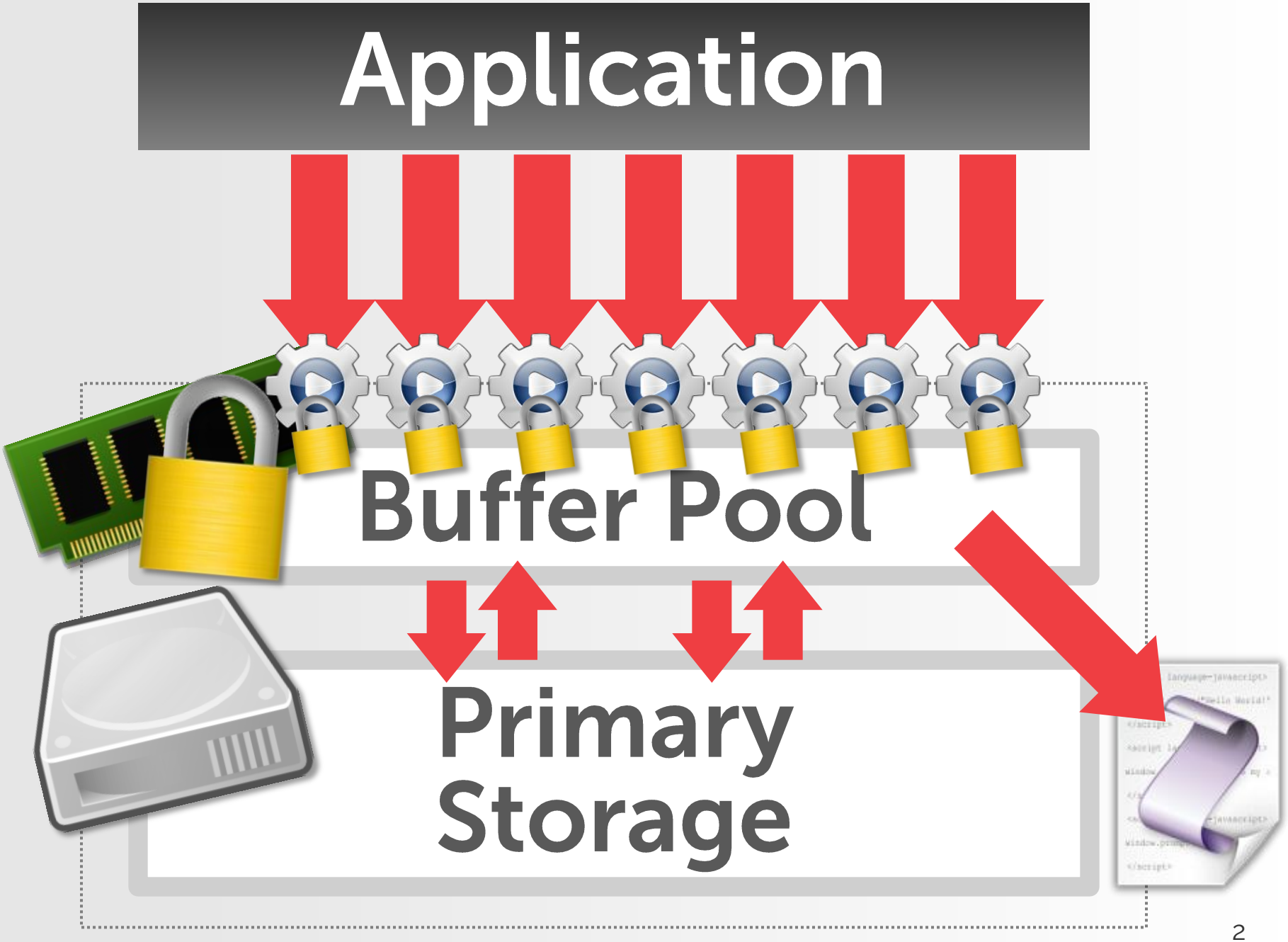
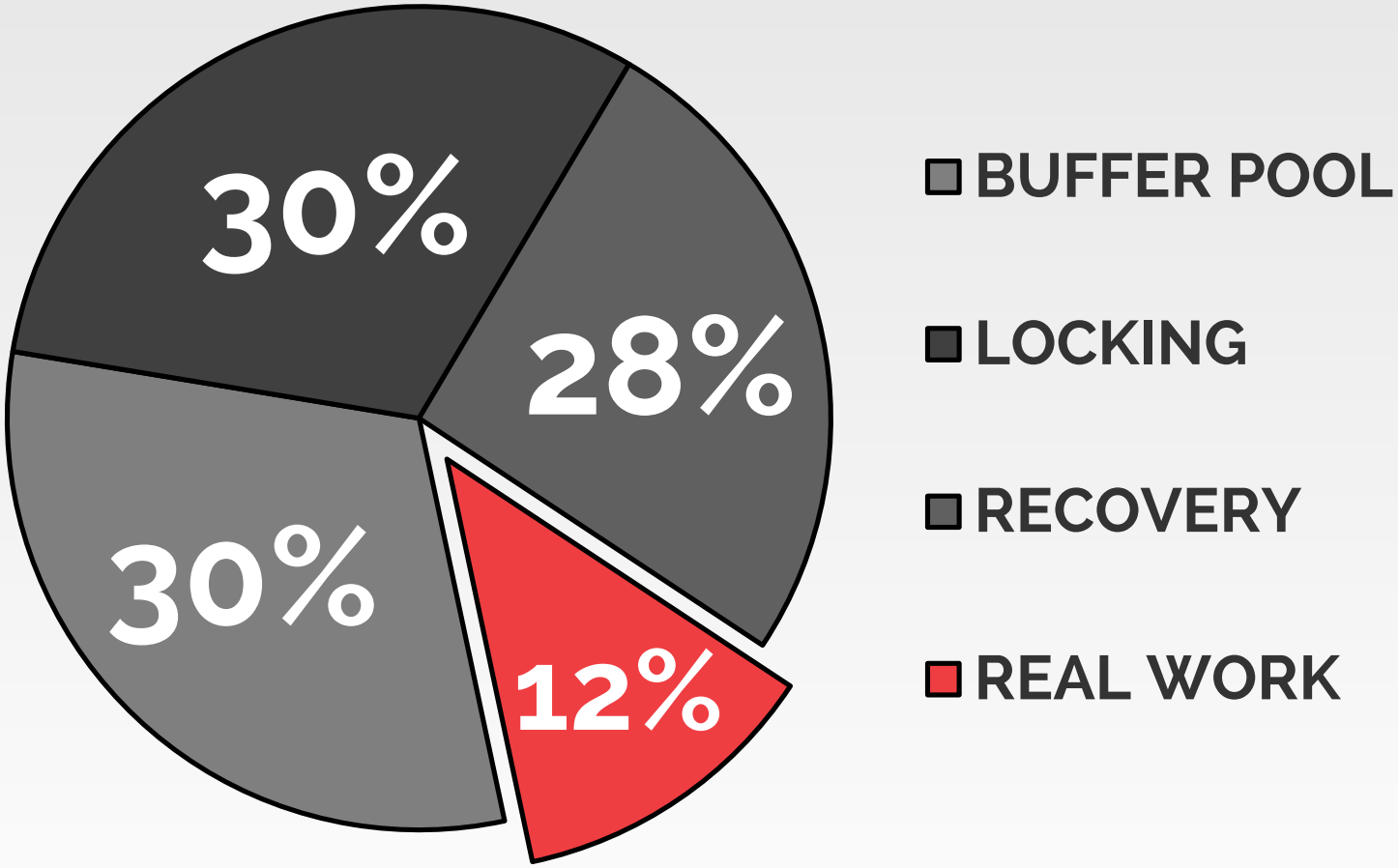
C.R.E.A.M.

CACHE RULES EVERYTHING AROUND ME


Application
Buffer Pool
Primary Storage

Disk-Oriented Overhead

Measured CPU Cycles



OLTP THROUGH THE LOOKING GLASS, AND WHAT WE FOUND THERE
SIGMOD, pp. 981-992, 2008.

H-Store

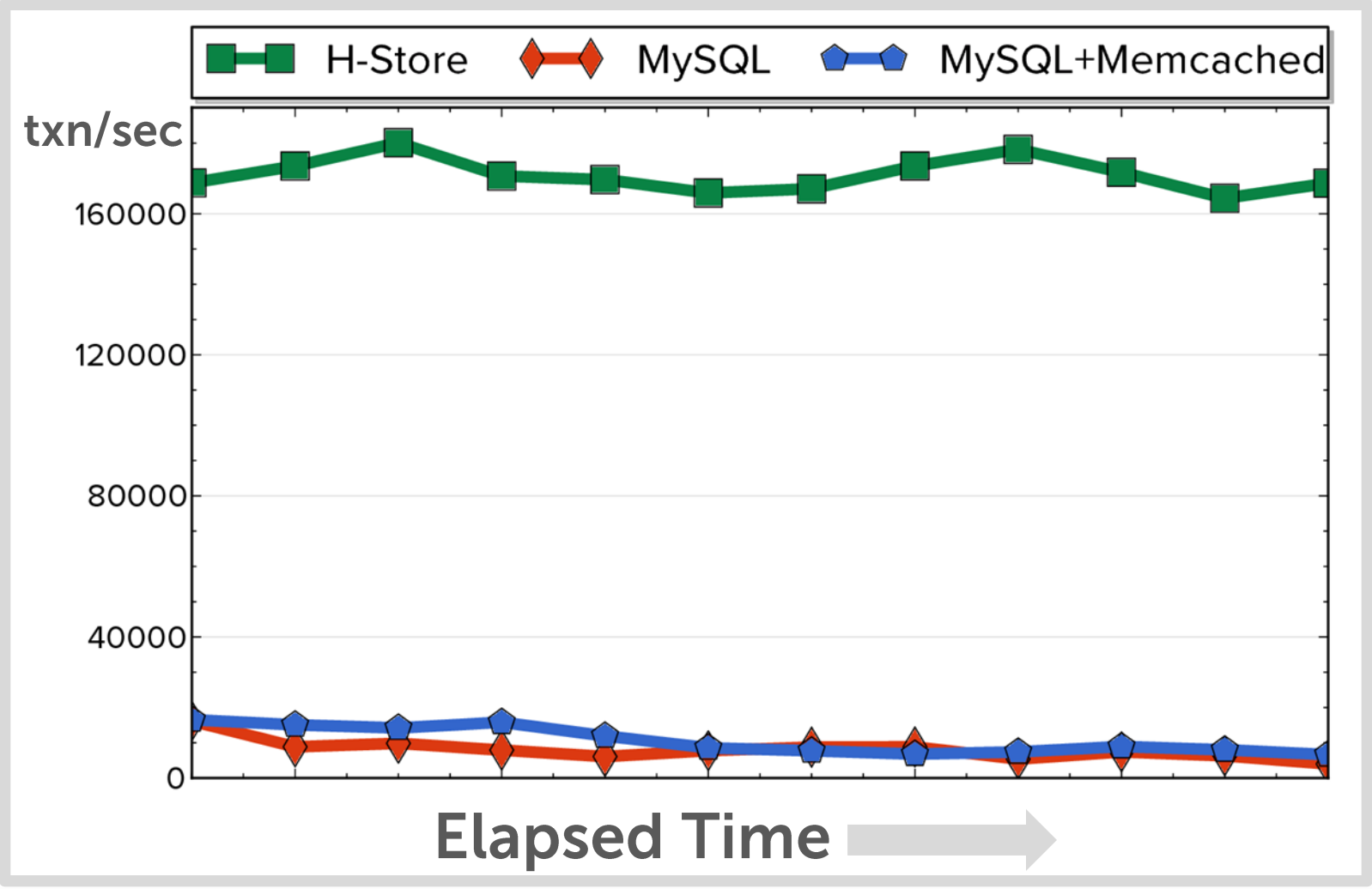
Transaction Processing System

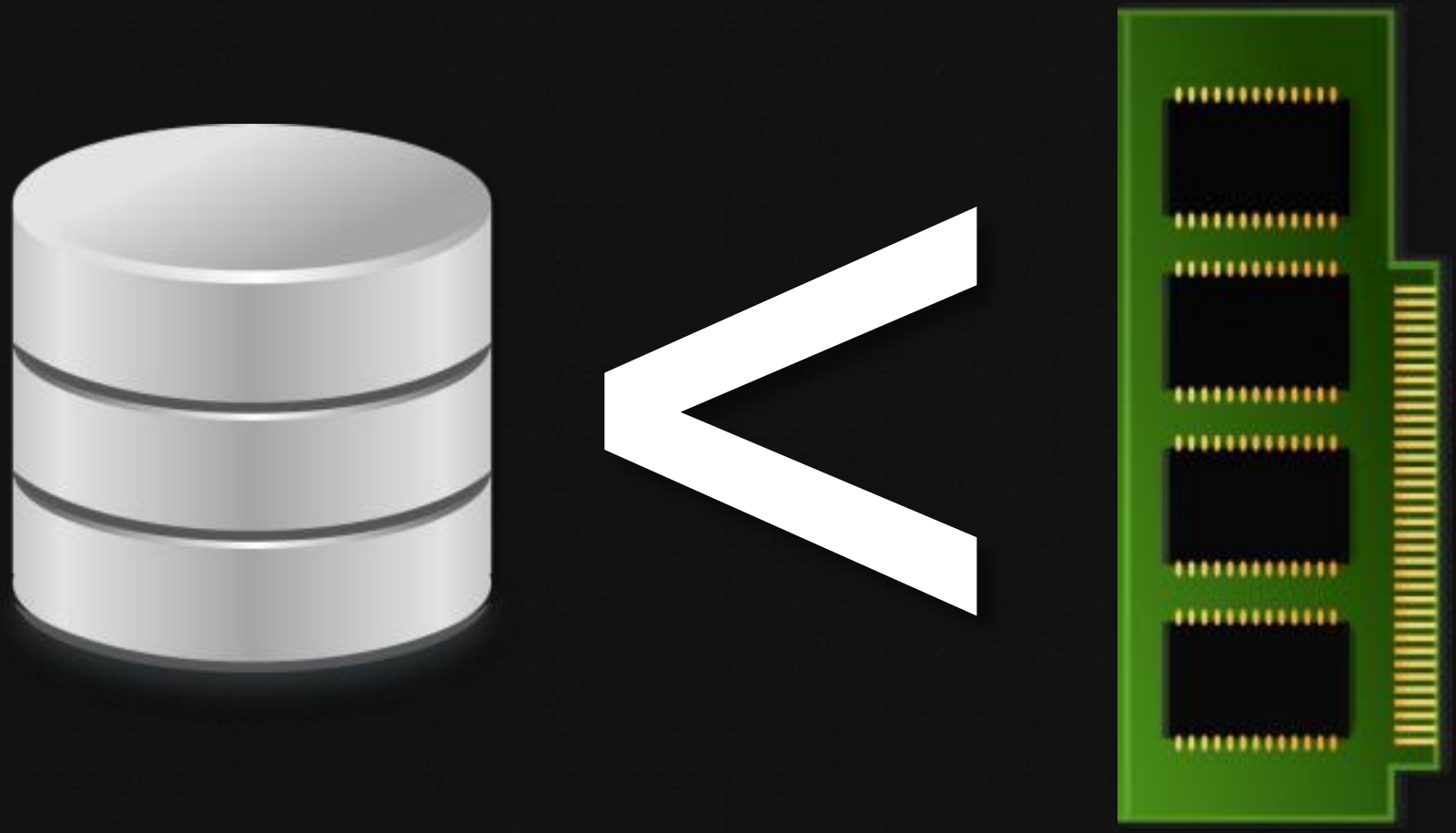
H-STORE: A HIGH-PERFORMANCE, DISTRIBUTED MAIN MEMORY TRANSACTION PROCESSING SYSTEM

Proc. VLDB Endow., vol. 1, iss. 2, pp. 1496-1499, 2008.

Yahoo! Cloud Benchmark

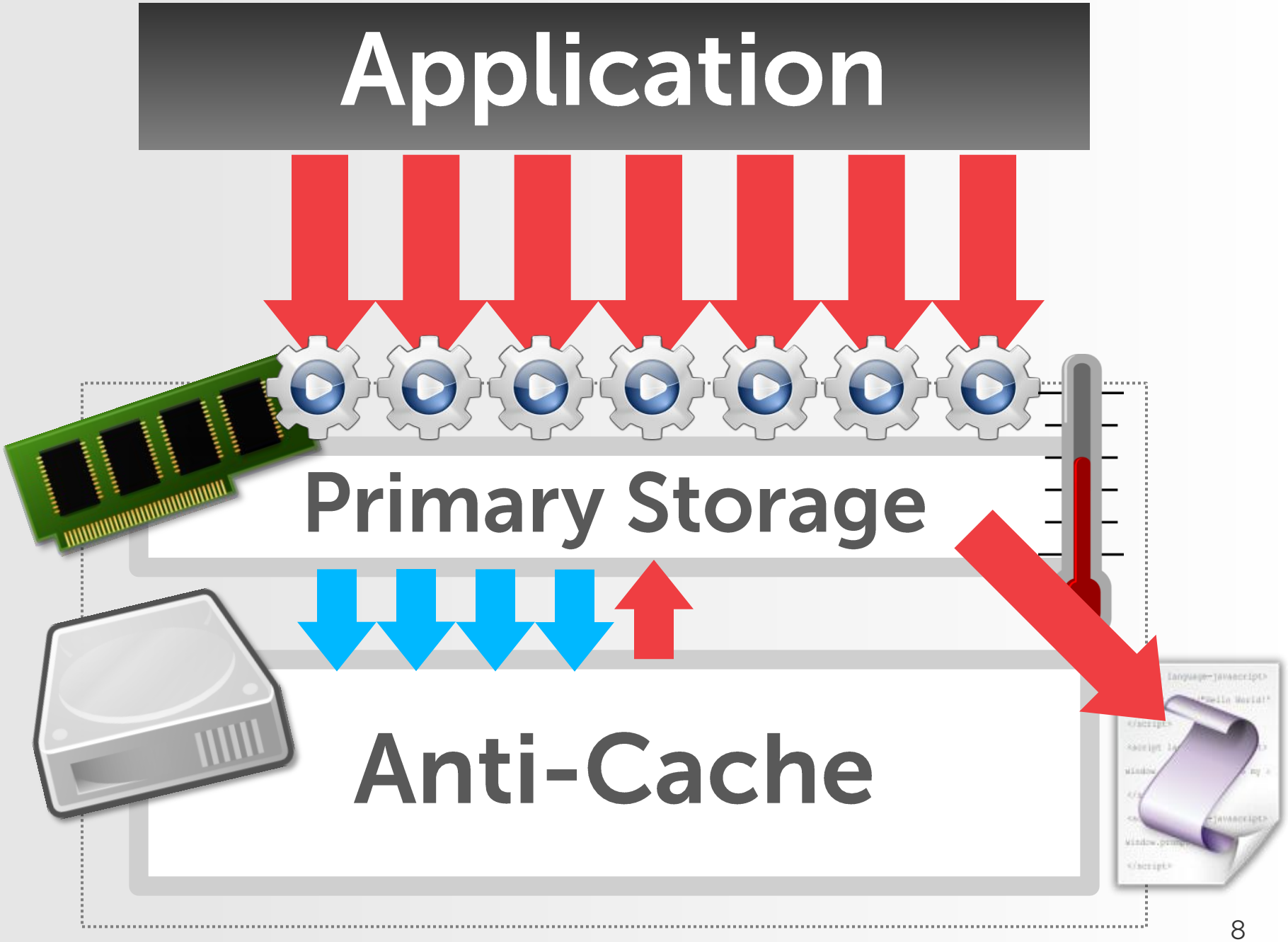
50% Reads / 50% Writes





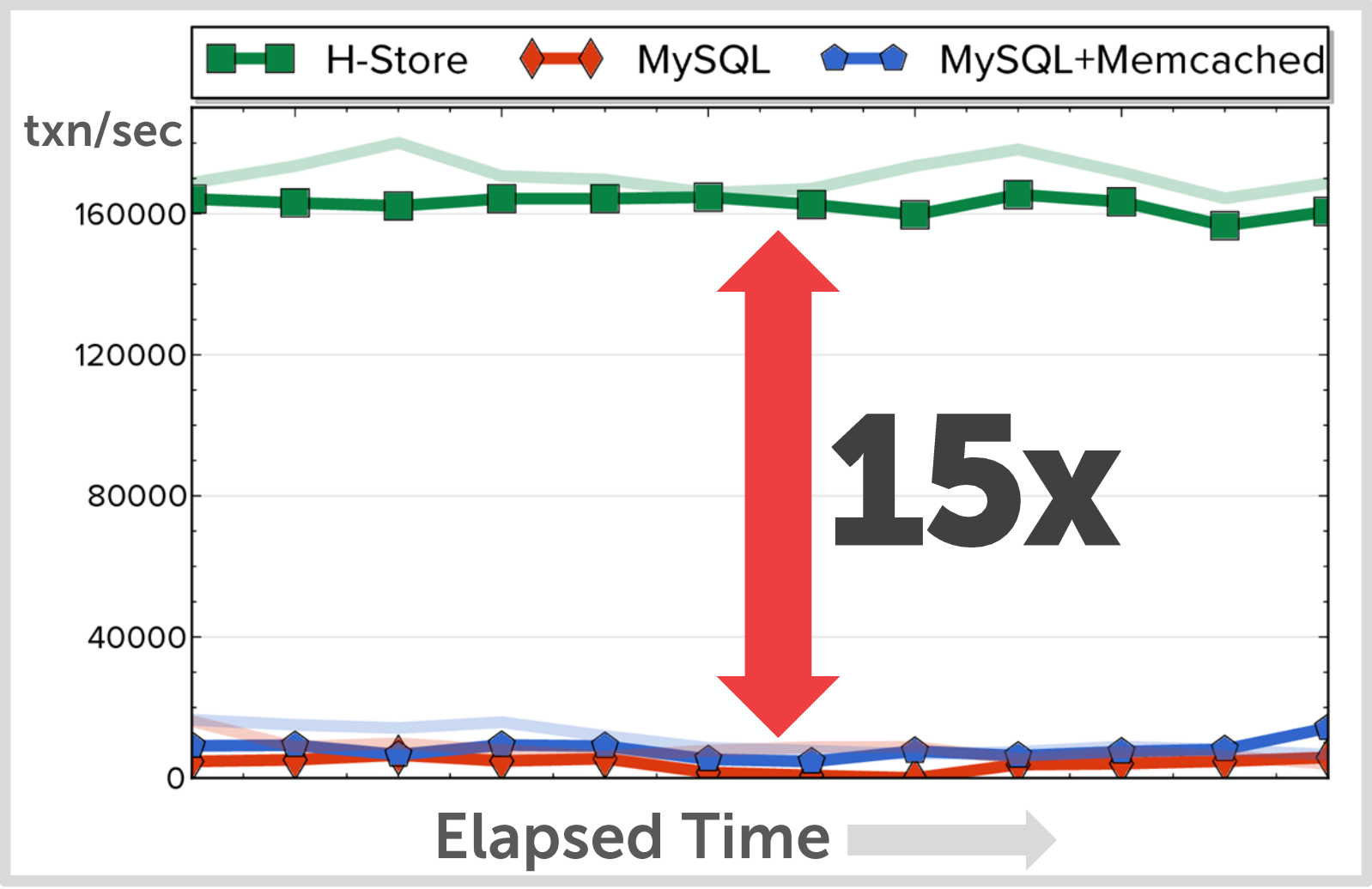
Anti-Caching

ANTI-CACHING: A NEW APPROACH TO
DATABASE MANAGEMENT SYSTEM ARCHITECTURE
In Submission.


Application
Primary Storage
Anti-Cache

YCSB (2x Memory)

50% Reads / 50% Writes



Future Work

- Large Memory Queries.
- Eviction Strategies
- Block Reorganization
- “No Fetch” Queries.

Conclusion

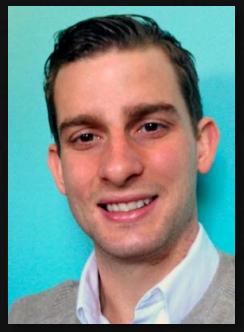
Anti-Caching

BROWN Database Group

H-Store

hstore.cs.brown.edu

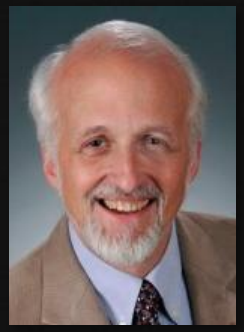
Andy **Pavlo**



Justin **DeBrabant**

Stephen **Tu**

"The Thrill" **Stonebraker**



Stan **Zdonik**