

1973



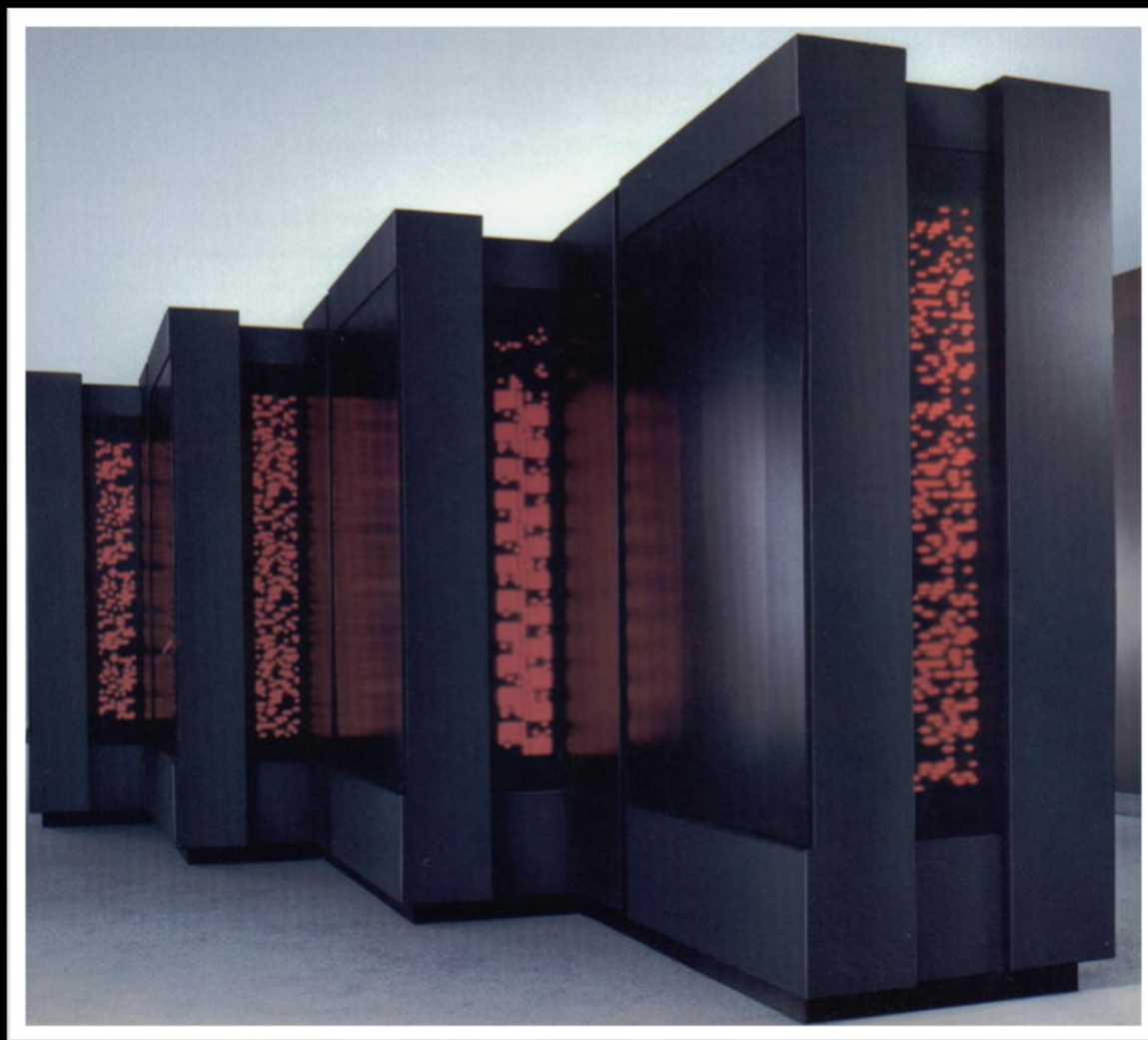
1974



1978



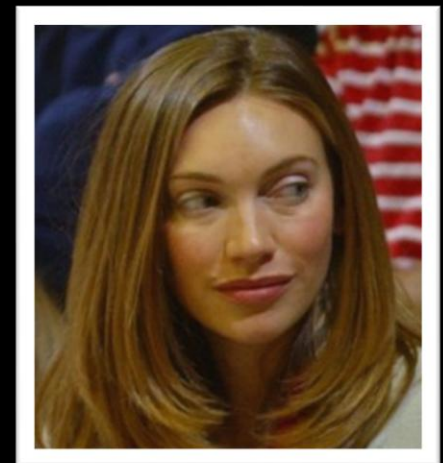
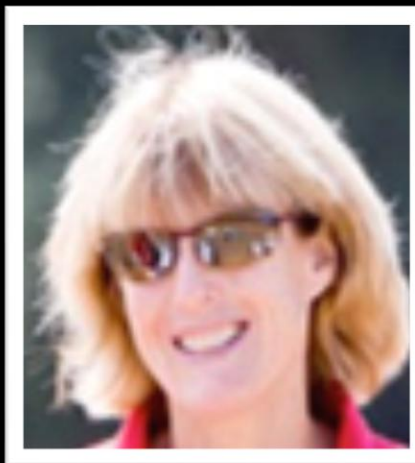
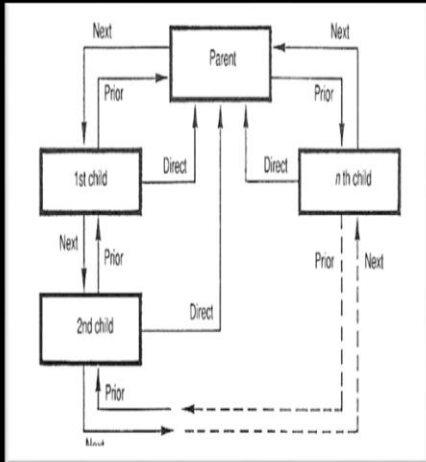
1986



1994



2010



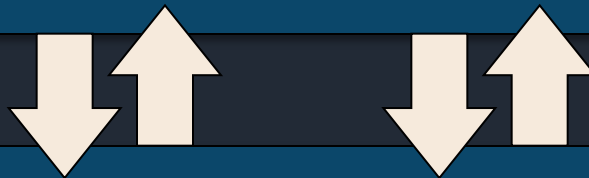


2013

Application



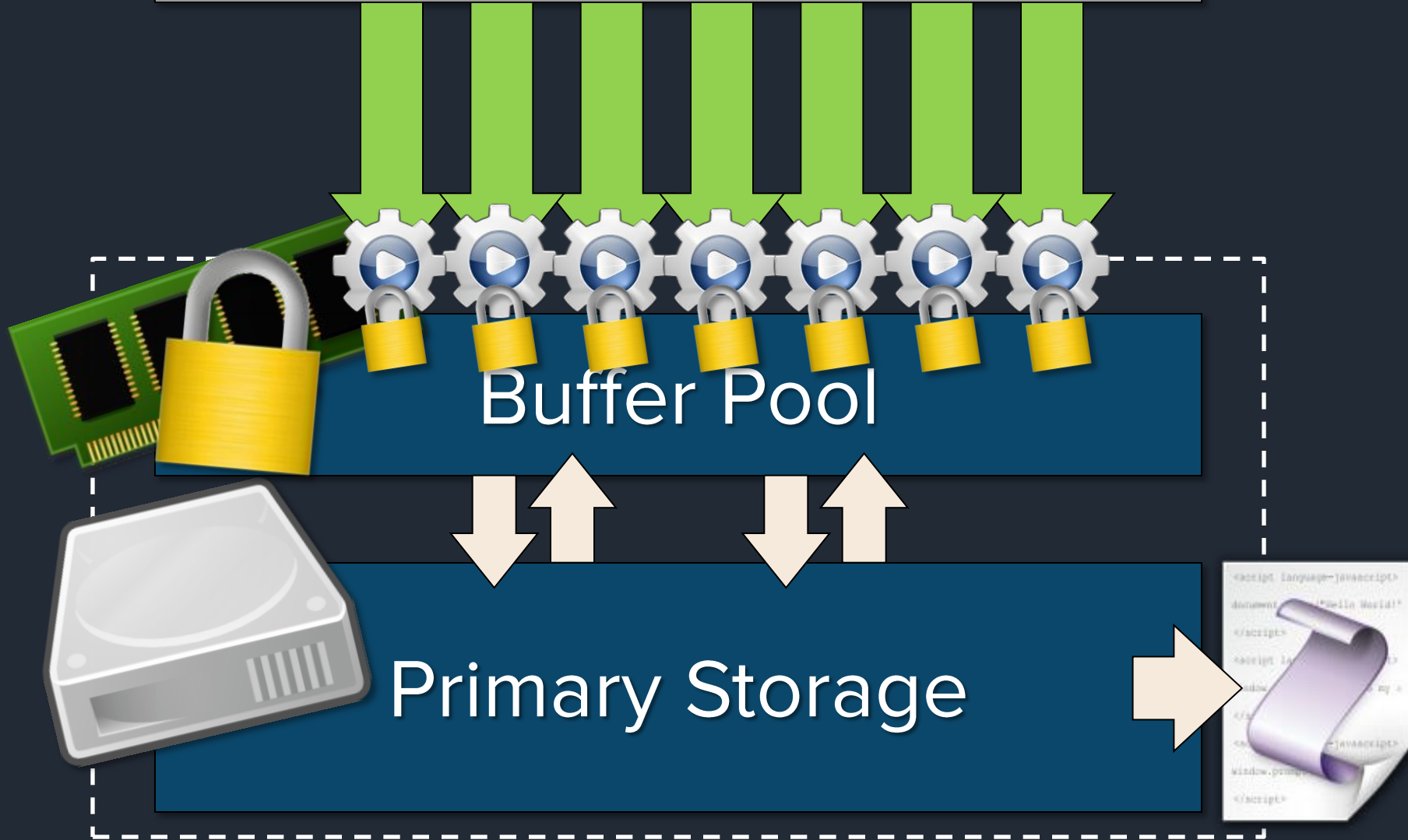
Buffer Pool

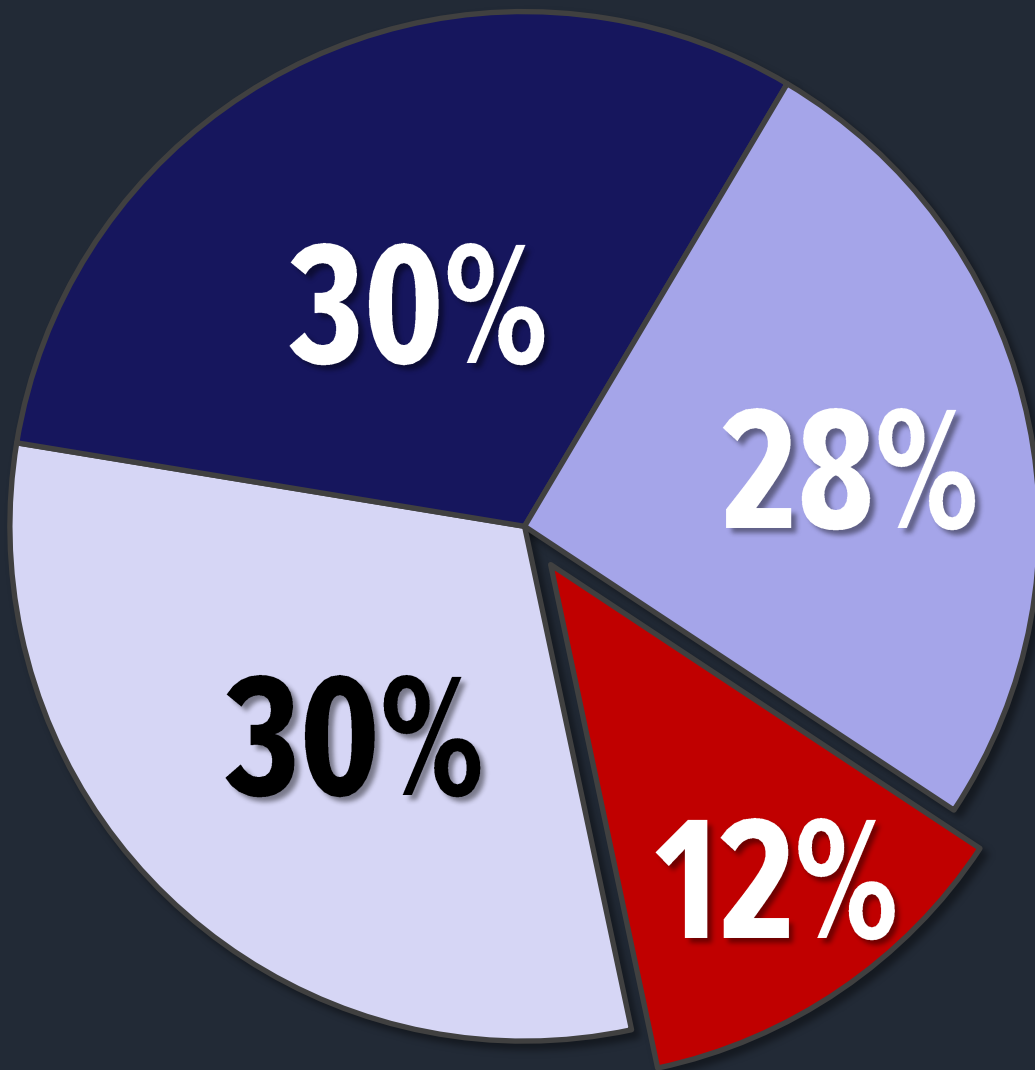


Primary Storage



Application





- Buffer Pool
- Locking
- Recovery
- Real Work

OLTP Through the Looking Glass,
and What We Found There
SIGMOD '08, pp. 981-992, 2008.



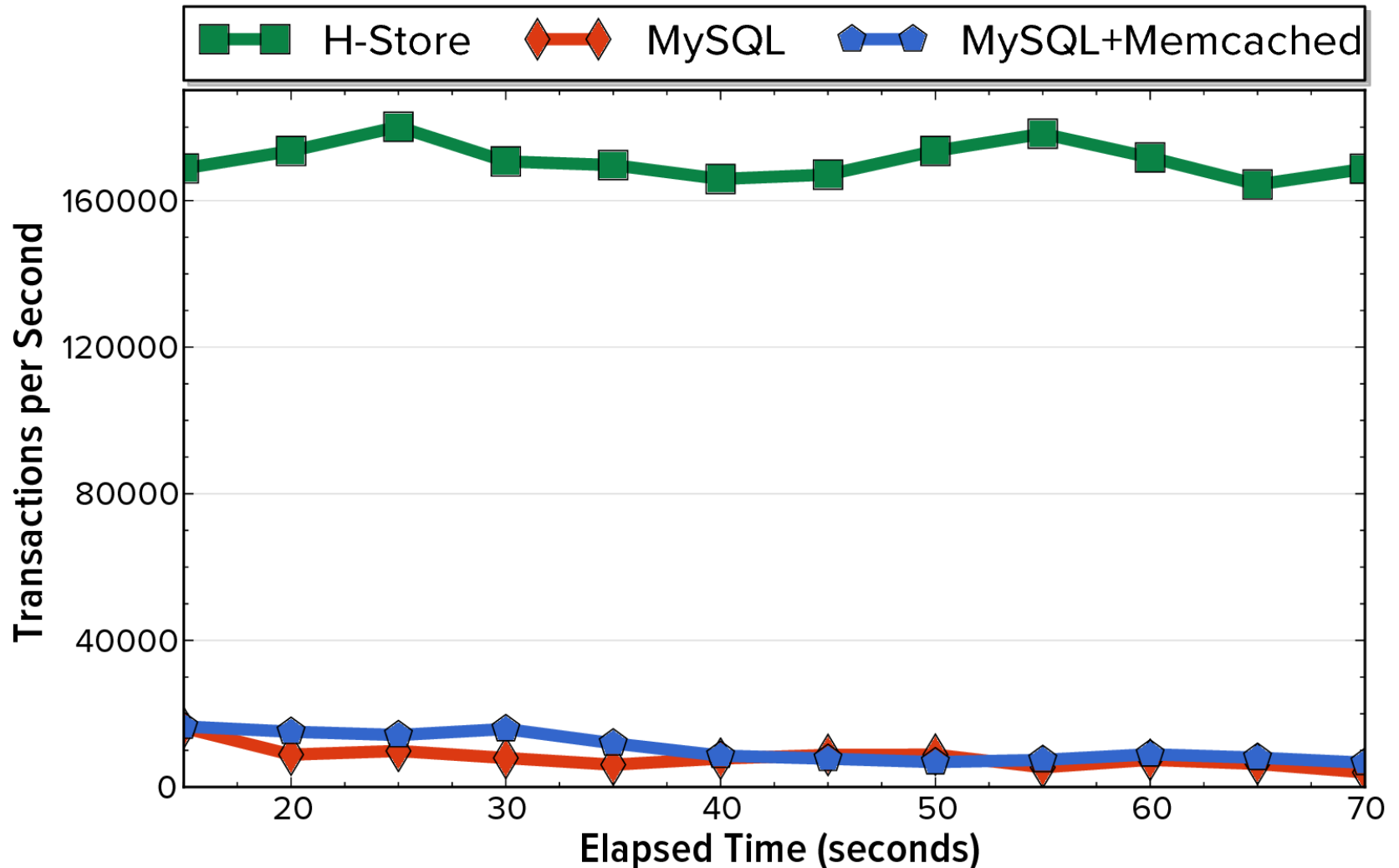
H-Store

Parallel Main Memory
Transaction Processing System

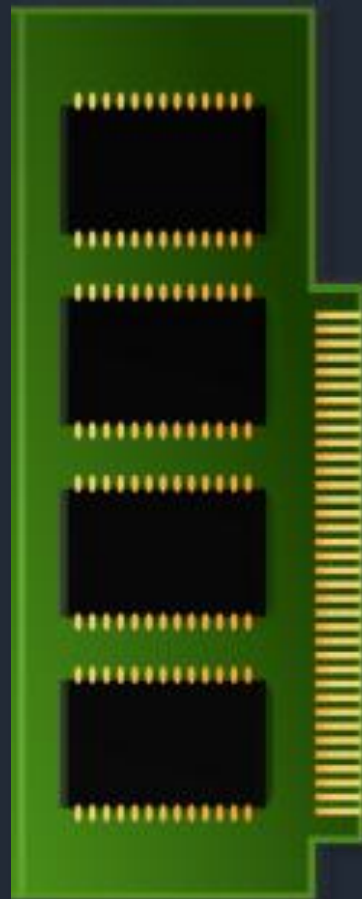
H-Store: A High-Performance, Distributed
Main Memory Transaction Processing System
Proc. VLDB Endow., vol. 1, iss. 2, pp. 1496-1499, 2008.



YCSB



50% Reads / 50% Writes



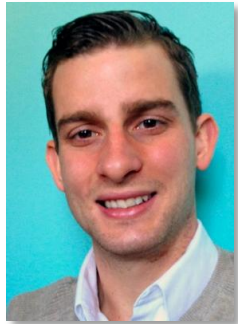
Anti-Caching: A New Approach to
Database Management System Architecture
In Preparation.



Anti-Caching



Andy
Pavlo



Justin
DeBrabant



Stephen
Tu



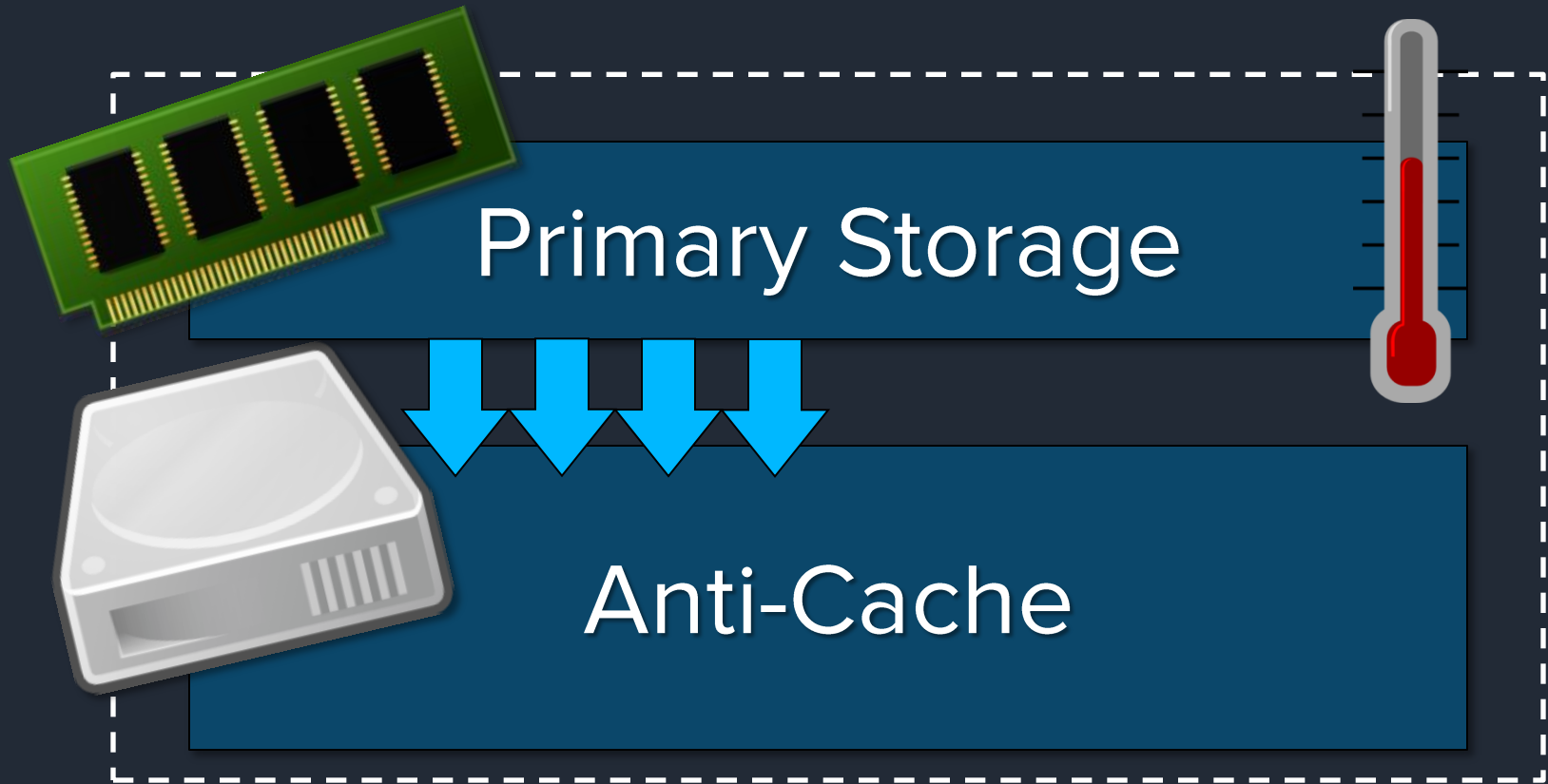
"The Thrill"
Stonebraker



Stan
Zdonik



Application



Application



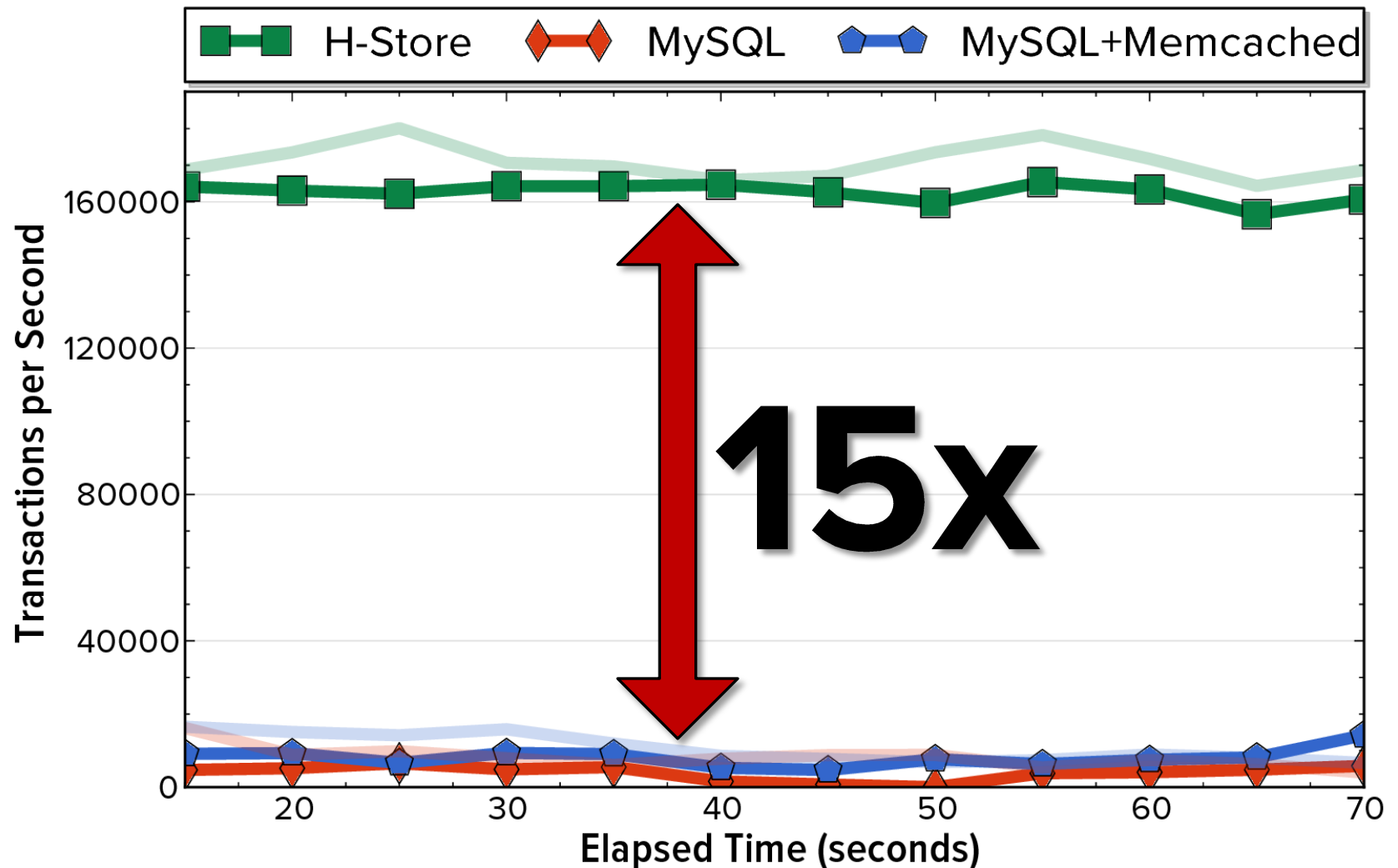
Primary Storage



Anti-Cache



YCSB (2x Memory)

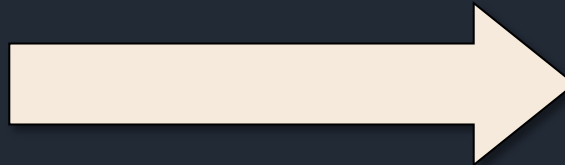
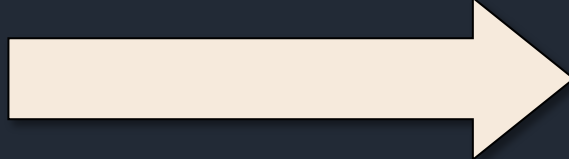
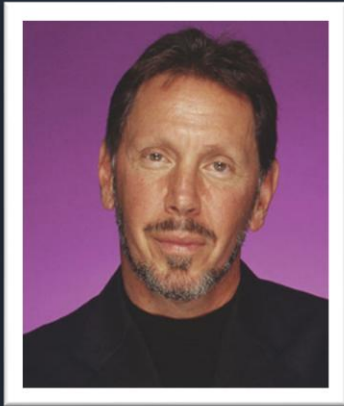


50% Reads / 50% Writes

Future Work:

- Large-than-memory queries.
- Eviction Strategies.
- Block Reorganization.

Conclusion:



Anti-Caching



H-Store

hstore.cs.brown.edu

@andy_pavlo