

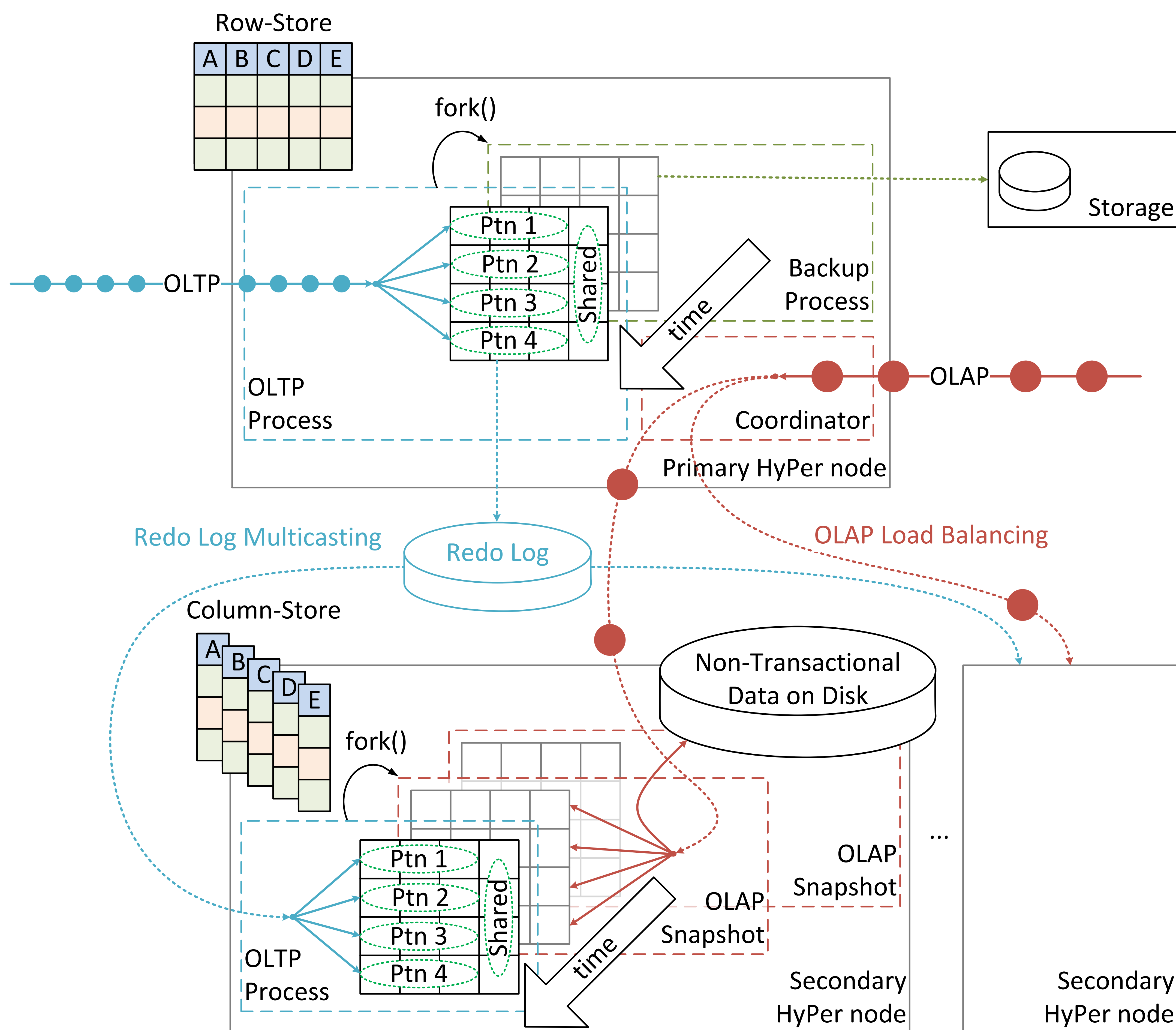
ScyPer: A Hybrid OLTP&OLAP Distributed Main Memory Database System for Scalable Real-Time Analytics

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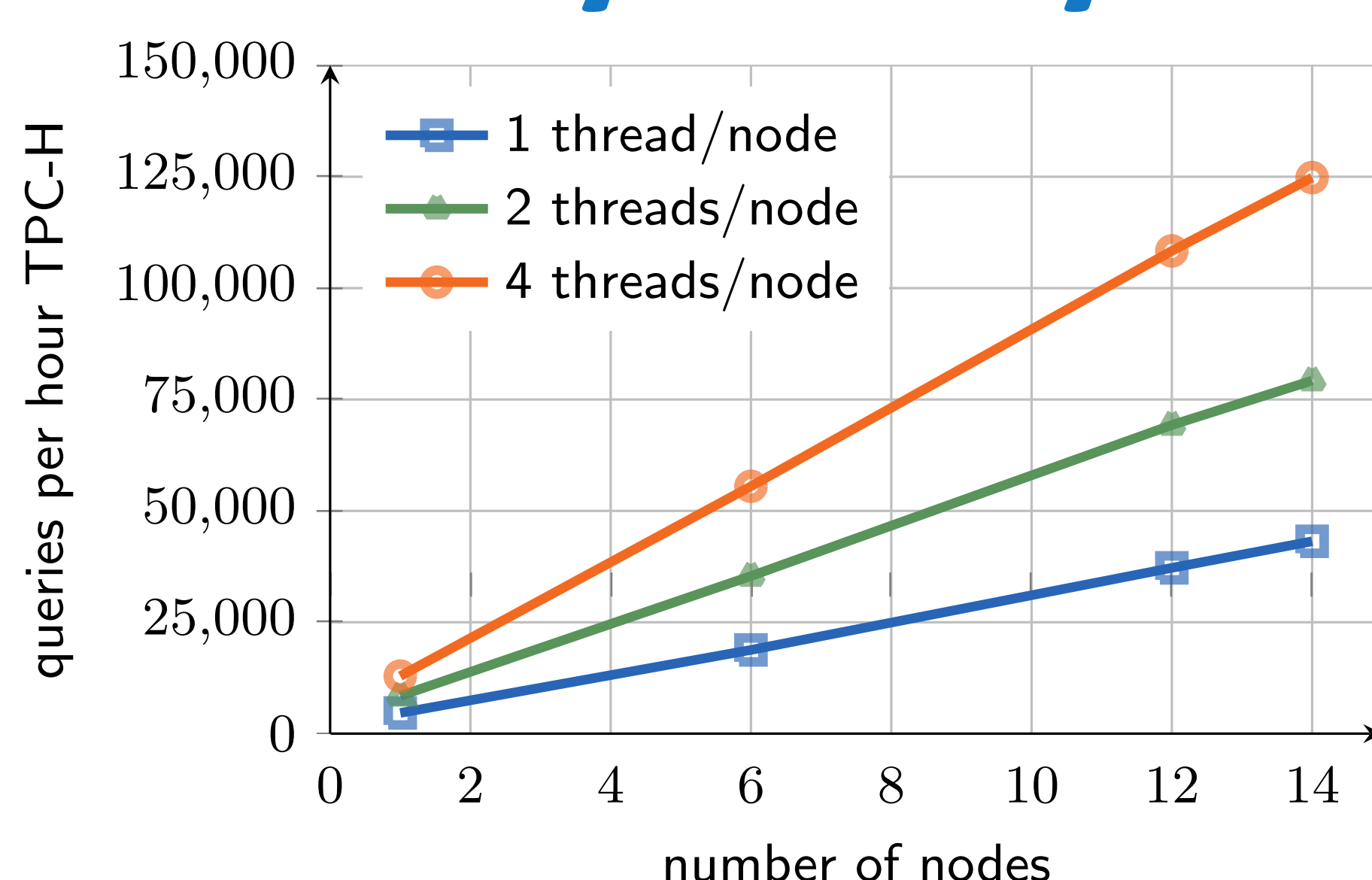
Motivation

- Modern hybrid main memory DBMS process $> 100,000$ TPC-C TX/s in a single HW thread
 - Evaluation of OLAP queries on arbitrarily recent snapshots of the transactional database
 - OLAP query throughput limited by the number of available hardware threads
- ⇒ OLTP throughput sufficient, scale-up of OLAP throughput needed

ScyPer Architecture



Scalability of ScyPer



Scalability on a 14 low-end node cluster

Redo Log Multicasting

- PGM-based multicasting
- ~ 700 Mbit/s throughput in 1GbE network
- 100B/log entry $\Rightarrow \sim 900,000$ entries per second

Get in touch:

<http://www-db.in.tum.de/HyPer>

