

A Brief History of HPTS

Slide 2 by Wayne Duquaine

Authors of HPTS 1985 papers marked in **red** also
were at HPTS 2015

HPTS 10 year Milestones in Pictures

1985

Burning question

Can we reach 1000 TPS ?



1995

Can Shared Nothing Scale to Mainframe ?



2005

Will Grid Computing Actually Scale Well ?



2015

How do we best visualize and virtualize



CENTRALIZED



DISTRIBUTED



CLUSTERED



PERVASIVE

The Mainframe is the Computer.
IMS rules !

1 computer per 10,000 people



The Network is the Computer.
Minis rule !



The Cloud is the Computer.
Hadoop rules !



Computing is Everywhere. Rise of the machines.

1.5 computers per person



HPTS Agendas

- [1985](#)
- [1987](#) (Still [available from Springer-Verlag!](#))
- 1989
- 1991
- [1993](#) (the year of TP-lite and TP-heavy)
- 1995 (I have proceedings here)
- 1997 (I have proceedings here)

- For 1999 and later, see <http://hpts.ws>, thanks to HPTS webmaster, Mark Little!

HPTS 1985 Papers: 1

- R. Wilmot: Transaction Performance Improvement from Fractional Direct Addressing.
- Andreas Reuter: The Transaction Pipeline Processor.
- Kurt A. Shoens: Data Sharing vs. Partitioning for Capacity and Availability., reprinted in Database Engineering Bulletin 9(1): 116 (1986)
- Miron Livny, Setrag Khoshafian, Haran Boral: Multi-Disk Management Algorithms., reprinted in Database Engineering Bulletin 9(1): 24-36 (1986)
- Jürgen Krause: Experiences with an Airline Reservation System Using TPF.

HPTS 1985 Papers: 2

- C. Skeadas: Experiences with a Bank Retail System Using IMS/VS Fast Path.
- S. Westin: Experiences with a Bank Retail System Using NonStop TXP.
- W. Finkelstein, M. Cappi: Experiences with Large Networks of Computers.
- K. Ong: Performance of the Debit/Credit Transaction Using a Relational DBMS.
- Alfred Z. Spector, Dean S. Daniels: Performance Evaluation on Distributed Transaction Facilities.
- Omri Serlin: Why Haven't FT Systems Been More Successful?

HPTS 1985 Papers: 3

- M. Haperlin, T. Storey: The Evolution of Online Transaction Processing under CICS/VS.
- Pat Helland: High Transaction Rates in a Distributed Systems.
- W. Imura: Implementation Techniques for High Volume Transaction Systems.
- Thomas W. Scrutchin: TPF: Performance, Capacity, and Availability.
- Dieter Gawlick: High Availability with Large Transaction Systems.
- Jim Gray: Fault Tolerance in Tandem Systems.

HPTS 1985 Papers: 4

- Philip A. Bernstein: Synchronizing Shared Memory in the SEQUOIA Fault-Tolerant Multiprocessor., reprinted in Database Engineering Bulletin 9(1): 17-23 (1986)
- Pete Homan: Systems and Network Management in High Transaction Rate Systems.
- Michael Stonebraker: The Case for Shared Nothing., reprinted in Database Engineering Bulletin 9(1): 4-9 (1986)
- Patrick E. O'Neil: Escrow Transactions Permitting Concurrent Record Updates., journal version: TODS 11(4): 405-430 (1986)
- Tobin J. Lehman, Michael J. Carey: A Study of Index Structures for a Main Memory Database Management System.

HPTS 1985 Papers: 5

- Rudolf Bayer: Consistency of Transactions and Random Batch., journal version: TODS 11(4): 396-404 (1986)
- Meichun Hsu, Arvola Chan: Partitioned Two-Phase Locking., journal version: TODS 11(4): 431-446 (1986)
- C. Mohan, Bruce G. Lindsay: Commit Coordination, Deadlock Detection & Concurrency Control in DBMS.
- Arvola Chan, Umeshwar Dayal, Meichun Hsu: Providing Database Management Capabilities for Mission Critical Applications.