

Transaction Processing Performance Council

Past, Present, Future

June 2008

Past: Industry Prior to TPC Formation

- 1980 – ATMs and end-user interaction with databases spur an industry transformation from batch processing to transaction processing
- 1982 – OLTP becomes a major industry and server software and hardware vendors claim aggressive performance results
- 1985 – TP1 is launched, however there are still poor definitions, no control of the benchmark process and inflated claims
- 1985 – DebitCredit is introduced with tighter definitions and required pricing information. There is still no oversight body which spurs even more egregious benchmarking
- 1988 – The TPC is formed by eight companies to create good benchmarks and a good process for review and monitoring, including oversight and policing

Past: TPC Events & Accomplishments

- 1989 – The newly-formed TPC publishes its first benchmark: TPC-A
- 1990 – TAB and the challenge process are established
- 1991 – TPC fair use policies are established
- 1992 – TPC-C is introduced as a more representative, balanced OLTP
- 1994 – The TPC requires that all results be audited
- 1995 – TPC-D, a complex decision support (query) benchmark, is introduced
- 1999 – TPC-D is replaced by TPC-H and TPC-R, and the TPC-W benchmark is approved

Past: TPC Events & Accomplishments

- 2001 – TPC-W is revised
- 2003 – The current versions of TPC-C and TPC-H are approved
- 2005 – TPC-App is approved as an application server and web services benchmark; TPC-R and TPC-W are retired
- 2007 – TPC-E is launched with a new OLTP workload

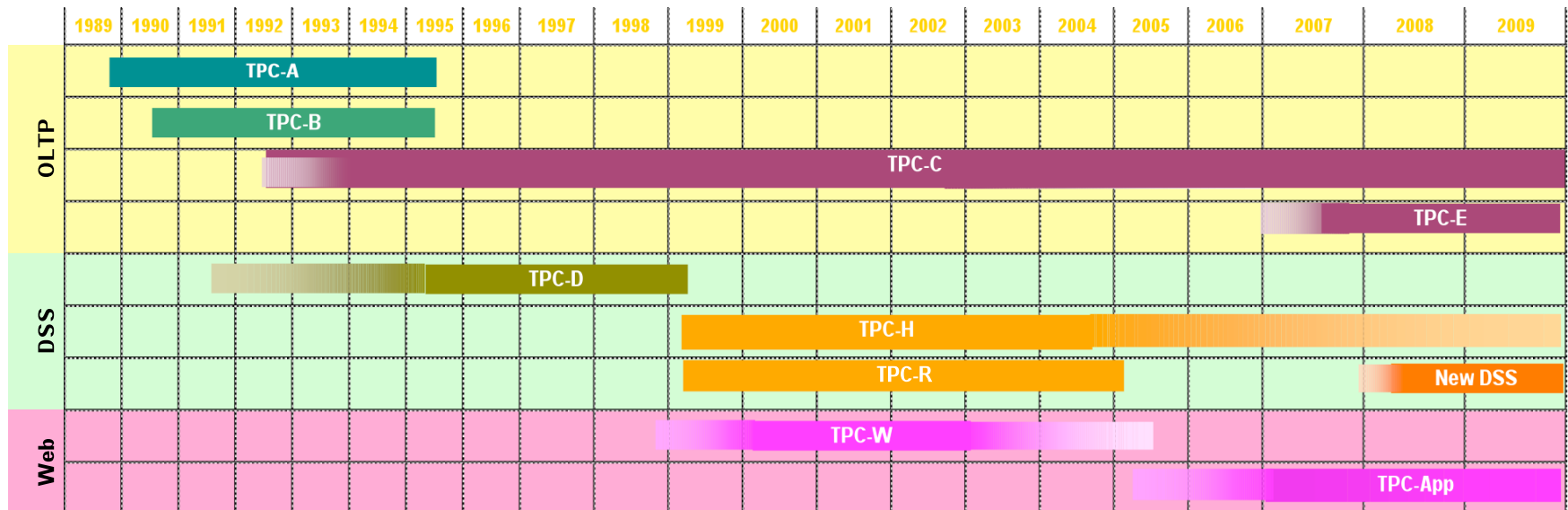
Present: Infrastructure & Processes

- Audit Process
 - TPC results must be verified by an independent auditor.
 - Auditor selected from a list of TPC certified auditors.
 - Verification of compliance with the benchmark specification.
 - Focus on verifying the methodology used for reaching compliance.
- Peer Review Process
 - The Technical Advisory Board (TAB) handles all compliance challenges.
 - Compliance of a result can be challenged by any member.
 - The test sponsor has 7 day response time.
 - Unsatisfactory response is scheduled for the review process of the TAB.
 - A meeting is scheduled for discussion of the issue. The challenger and the test sponsor present their arguments.
 - Further discussion by the TAB may occur until a recommendation for a resolution vote passes by the TAB.
 - Recommendation is presented to the TPC for a vote at a general meeting.

Present: Infrastructure & Processes

- Fair Use Policy
 - All member companies have to abide by the fair use policy.
 - Do's
 - Include when result was current - "as of date"
 - Acknowledgment of TPC copyrights.
 - Fence claims to make them absolutely truthful
 - i.e. Best performance for 1-way Intel-based servers running MS SQL2000.
 - Include TPC primary metrics in all disclosures
 - Use an NDA for non-compliant disclosures.
 - Don'ts
 - Use any TPC metric without disclosing all the 3 primary metrics in the same document.
 - Compare TPC result with a non-TPC result.
 - Use any Estimates.
 - Make claims against a competitor using incomplete results.
 - Use results from obsolete benchmarks

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Future: Ongoing Work

- Benchmark Updates
 - All existing benchmarks (TPC-C, E, H, App)
- TPC-DS
 - Decision support benchmark
- Energy
 - Objective is to add energy metric(s) to the TPC benchmarks
- ETL
 - Tasked to define the scope and overall objectives of an ETL benchmark
- SOA
 - Tasked to evaluate SOA benchmark proposal from IBM