



CUT TIME ON FINANCIAL WORKLOADS BY UP TO 2.48X!¹

BENEFITS FOR FINANCIAL SERVICES



ANALYZE MORE DATA

in less time, with fewer computing resources



REALIZE NEW OPPORTUNITIES

to achieve alpha



STREAMLINE COMPLIANCE

with government regulations

CRUNCHING TIME-SERIES BIG DATA WITH KDB+

- In-memory column store and disk-based database
- Q language for explicitly parallel programming
- Real-time analytics
- Repository for time-series data

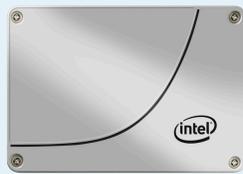
UPGRADING PROCESSOR AND LOCAL STORAGE dramatically improves performance for Kx Systems kdb+*



Intel® Xeon® processor E7-4890 v2



Good (Baseline)



Intel® SSD DC S3700 (SATA)



13.69 Seconds¹



Intel® Xeon® processor E7-8890 v3



Better (Upgraded)



Intel® SSD DC P3700 (PCI Express NVMe-based*)



5.5 Seconds¹

PROCESSOR UPGRADE ADVANTAGES

Higher parallelism
up to 20% more cores than predecessors

Fast memory subsystem
DDR4 RAM support

Accelerated floating-point math
Intel® AVX 2.0

STORAGE UPGRADE ADVANTAGES

Fast data transfer
Non-Volatile Memory Express*

Great responsiveness
Low storage latency

Better together
Optimized for Intel® Xeon® processors

TIME TO COMPLETE WORKLOAD¹

(LOWER IS BETTER)

Testing based on STAC-M3 Benchmark Suite for time-series analytics.

LEARN MORE

www.intel.com/xeon

www.intel.com/ssd

www.kx.com

www.STACresearch.com/M3

¹ Testing based on STAC-M3 Benchmark Suite for time-series analytics, done by STAC* on kdb+* comparing 4S Intel® Xeon® Processor E7-8890 v3 and Intel® DC SSD P3700 to 4S Intel® Xeon® Processor E7-4890 v2 and Intel® DC SSD S3700. BASELINE: Kx Systems kdb+* 3.1 on CentOS Linux 6.5 2.6.32-504.el6.x86_64, 4S Intel® Xeon® processor E7-4890 v2, 2.8GHz, 15 cores, 1TB DDR3 1600 MHz 64x16GBDIMM, 7x 800GB Intel SSD S3700s, Raid 5 and 11 LUNs, 1GbE network. NEW: Kx Systems kdb+* 3.3 on Red Hat Enterprise Linux 7.1 (kernel 3.10.0-229.el7.x86_64), 4S Intel® Xeon® processor E7-8890 v3, 2.5GHz, 18 cores, 1 TB DDR4 1600 MHz 64x16GBDIMM, 9 x 2TB Intel SSD P3700s, No Raid, JBOD, 9 LUNs, 1GbE network. Testing by STAC June 15, 2015. Workload: STAC-M3* 100-user intervalized statistics benchmark (STAC-M3.B1.100T.STATS-UI.TIME). More details at www.STACresearch.com/KDB150612 and www.STACresearch.com/KDB140212. Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark, MobileMark, and STAC Benchmarks*, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit <http://www.intel.com/performance>. *Kx and kdb+ are registered trademarks of Kx Systems, Inc. STAC and all STAC names are trademarks or registered trademarks of the Securities Technology Analysis Center LLC. Copyright © 2015 Intel Corporation. All rights reserved. *Other names and brands may be claimed as the property of others.