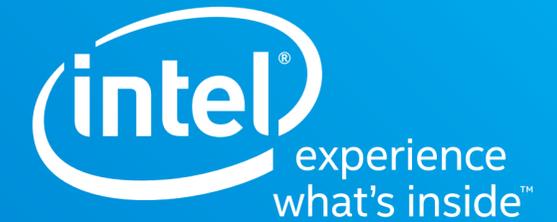


# ADVANCED ANALYTICS DELIVERS REAL BUSINESS VALUE



“With Intel® Xeon® Scalable processors, our software delivered about a 4x benefit vs. previous generation”<sup>1</sup>

Brian Bulkowski,  
Cofounder and CTO, Aerospike\*

Watch the Video



Montefiore Health System\* achieved accurate prediction of prolonged ventilation, detecting patients with more than 70 percent<sup>2</sup> likelihood of an event, 48 hours in advance of a fatal episode or respiratory failure in the hospital.

Watch the Video



Sharp Healthcare\* found that its predictive analytics model was 80 percent accurate in predicting the likelihood of a rapid response team event within the next hour<sup>3</sup>

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China UnionPay\* has been able to deliver 60 percent greater accuracy versus its rules-based control system<sup>4</sup>

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Learn how advanced analytics has helped businesses around the world boost efficiency, drive innovation, reduce risk and improve customer experience.

EXPLORE CUSTOMER EXAMPLES

<sup>1</sup> Aerospike Server Enterprise 3.12.1, Aerospike Benchmark Application, OS: CentOS 7.2 with kernel updated to 4.4.59. Testing by Intel April 2017. The database was populated with 400 M records of 100 bytes each and benchmarked with the Aerospike Java Benchmark tool (<https://github.com/aerospike/aerospike-client-java>). The workload simulated 95%/5% read/update ratio. Two Aerospike instances were launched on a single server forming a cluster. BASELINE: Intel® Xeon® processor E5-2699 v4, 2.2 GHz, 22 cores, turbo and HT on, BIOS SESC610.868.01.01.0016.033120161139, 128 GB total memory, 16 DIMMs/8 GB/configured clock speed: 1866MHz/DDR4 DIMM, 2 x Intel® 82599ES 10 gigabit ethernet controllers – all 4 ports on the 2 network controllers were bonded for an aggregate 40000MB/s bond. No storage: in-memory workload. NEW: Intel® Xeon® Platinum processor 8180, 2.5 GHz, 28 cores, turbo and HT on, BIOS SESC620.868.01.00.0412.020920172159, 384 GB total memory, 12 DIMMs/32 GB/configured clock speed: 2666 MHz/DDR4 DIMM, 2 x Intel® 82599ES 10 gigabit ethernet controllers – all 4 ports on the 2 network controllers were bonded for an aggregate 40000MB/s bond. No storage: in-memory workload. Clients: 8 client systems were used to concurrently submit queries to the servers and drive the workload. The same clients were used in both 'baseline' and 'new'. The clients were configured as follows: CentOS 7.2 with kernel 3.10.0-327, Intel® Xeon® processor E5-2697 v4, 2.3 GHz, 18 cores, turbo and HT on, BIOS SESC610.868.01.01.0016.033120161139, 128 GB total memory, 8 DIMMs/16 GB/configured clock speed: 2400 MHz, 1 x Intel® 82599ES 10 gigabit ethernet controllers. For further details see: <https://youtu.be/JndYUfQILhg>

<sup>2</sup> For further details see: <https://www.intel.com/content/www/us/en/processors/xeon/scalable/software-solutions/aerospike-enterprise-database.html>

<sup>3</sup> For further details see: <https://www.intel.com/content/www/us/en/healthcare-it/solutions/documents/montefiore-advance-patient-care-solution-brief.html>

<sup>4</sup> 80-percent accuracy indicates the level of accuracy observed when scoring a set of unlabeled test data that was not used in the development of the model. For further details see: <https://www.intel.com/content/www/us/en/healthcare-it/solutions/documents/using-machine-learning-and-emr-data-to-predict-patient-decline-case-study.html>

<sup>5</sup> 62-percent precision indicates the level of precision observed when scoring a set of unlabeled test data that was not used in the development of the model. For further details see: <https://www.intel.com/content/www/us/en/financial-services-it/union-pay-case-study.html>

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, 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.

Benchmark results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown". Implementation of these updates may make these results inapplicable to your device or system. For more complete information about performance and benchmark results, visit [www.intel.com/benchmarks](http://www.intel.com/benchmarks)

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