

Don't Fall Behind in the Data Game

Improve decision intelligence by optimizing your analytics and artificial intelligence (AI) data pipelines



Skilled staff with data literacy

Legacy infrastructure and processes

Data quality

"To deliver maximum functionality, performance, security, and compliance—and minimize ongoing maintenance—Itaú Unibanco upgraded its data infrastructure with Intel[®] Xeon[®] Scalable processors. With powerful Intel® processors in place, Itaú Unibanco has reduced processing times by 20 percent. From initial deployment, Itaú Unibanco has seen faster application processing, along with minimal downtime."

Banco Itaú representative⁵

Optimize to advance your organization's data literacy and security.

A recent petabyte benchmark test by Amazon Web Services (AWS) and Intel shows how enterprises can use the Aerospike distributed NoSQL database management system (DBMS), in combination with key innovations in Intel Xeon Scalable processors and Intel® Optane™ technologies, to save millions of dollars per cloud application. With this solution, enterprises can power their real-time applications with predictable, sub-millisecond performance up to petabyte scale.⁶

intel. OPTANE

Ingest phase:

A large automaker was able to ingest 1 PB per day of critical research and development (R&D) data.⁷

Prepare phase:

SK Telecom's optimized Intel-based data pipeline outperforms its legacy solution by up to 4x.8

Store phase:

3rd Gen Intel Xeon Scalable processors outperform Amazon Web Services (AWS) Graviton2 by up to 1.53x for MongoDB maximum throughput.⁹

> Visualize phase: Complete graph-analytics computations 2x faster on average."

Analyze phase: Achieve up to 1.87x higher Al inference performance.¹⁰

Intel and its large partner ecosystem have your back every step of the way ...

... with modern data solutions powered by accelerators built into 3rd Gen Intel Xeon Scalable processors ...

Intel Software Guard Extensions (Intel SGX)

Safeguards system vulnerabilities

Intel OuickAssist Technology (Intel QAT)

> Accelerates data compression

Intel AES New Instructions (Intel AES-NI)

> Delivers fast encryption

Intel Advanced Vector Extensions 512 (Intel AVX-512)

Accelerates high-performance computing (HPC) and data analytics

Intel Deep Learning Boost (Intel DL Boost)

> Accelerates Al workloads

... and critical software optimizations to accelerate analytics sucess.

intel.





Intel technology-powered data pipeline solutions are delivering:





Win the data-analytics game

when you partner with Intel.

Find the right partner for Intel Xeon processor-based solutions at the Intel Solutions Marketplace.



¹ Gartner. "Gartner Data Shows 87 Percent of Organizations Have Low Bl and Analytics Maturity." December 2018

gartner.com/en/newsroom/press-releases/2018-12-06-gartner-data-shows-87-percent-of-organizations-have-low-bi-and-analytics-maturity.

s 'Rethink Data' Report Reveals That 68% Of Data Available Goes Unle ned "July 2020

seagate.com/news/news-archive/seagates-rethink-data-report-reveals-that-68-percent-of-data-available-to-businesses-goes-unleveraged-pr-master/.

³ Gartner. "Gartner Says Nearly Half of CIOs Are Planning to Deploy Artificial Intelligence." February 2018.

gartner.com/en/newsroom/press-releases/2018-02-13-gartner-says-nearly-half-of-cios-are-planning-to-deploy-artificial-intelligence.

⁴ Enterprise Strategy Group (ESG). "2022 State of Data Governance Empowerment." Sponsored by erwin by Quest. 2022. erwin.com/analyst-report/2022-state-of-data-governance-and-empowerment-report/.

⁵ Microsoft. "Itaú Unibanco boosts service availability and data processing with Microsoft SQL Server 2019 and Intel Xeon Scalable processors." Used with permission from Microsoft. February 2020. https://customers.microsoft.com/en-us/story/772594-itau-unibanco-banking-and-capital-markets-sql-server-2019.

^o Intel. "Petabyte Scale in AWS with Aerospike Utilizing Intel Technology." January 2022. intel.com/content/dam/www/central-libraries/us/en/documents/intel-aerospike-ebook.pdf. ⁷ Real-world customer collected autonomous driving data for analytics using Intel products and technologies.

⁸ Intel. "SK Telecom: AI Pipeline Improves Network Quality." October 2020. intel.com/content/www/us/en/customer-spotlight/stories/sk-telecom-ai-customer-story.html.

° As measured by Mongo DB max throughput testing on October 2021 of a 3rd Gen Intel Xeon Platinum processor versus an AWS Graviton2 M6g. For full workloads and configuration details, visit www.intel.com/PerformanceIndex (3rd Generation Intel Xeon Scalable processors, 103). Results may vary.

¹⁰ As measured by ResNet-50 inference throughput testing on May 18, 2020. For full workloads and configuration details, visit www.intel.com/PerformanceIndex (3rd Generation Intel Xeon Scalable processors, 2). Results may vary.

¹¹As measured by Katana graph testing on March 15, 2021. For full workloads and configuration details, visit www.intel.com/PerformanceIndex (3rd Generation Intel Xeon Scalable processors, 115). Results may vary.

Performance varies by use, configuration and other factors. Learn more at www.Intel.com/PerformanceIndex.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See configuration disclosure for additional details.

No product or component can be absolutely secure.

Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

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