

5 REASONS WHY AMD EPYC™ CPUs MATTER FOR DATA ANALYTICS

AT A GLANCE

Turn data into meaningful insights faster and more efficiently on-premises or in the cloud with solutions powered by AMD EPYC™ Processors. Get the superior performance and advanced security features you need to analyze your data better.

1

ACHIEVE MORE, FASTER, ACROSS MULTIPLE WORKLOADS

Accelerate your business initiatives

Drive faster time to results with world-record performance.¹ AMD EPYC™ Processors keep businesses running with high-performing options for data analytics.

2

ADDRESS FUNDAMENTAL DATA AND PRIVACY RISKS SIMPLY

Help protect your business while extracting greater insights from your data

Help guard critical data with hardware-based security features available in AMD EPYC Processors. The advanced security features of AMD Infinity Guard² assist your organization in taking control of security to decrease risks to your valuable proprietary data.

3

MAXIMIZE YOUR INVESTMENT

Reduce data center costs and space

AMD EPYC Processors are designed for efficiency so you can do more with your money, space and power. By using fewer servers to achieve your performance goals, you can improve data center utilization and support more analysis, all while helping you save on energy and cooling.

4

CREATE FAST AND FLEXIBLE DEPLOYMENTS

Analyze your data your way

AMD EPYC processor-based servers are available both for your data center and in the cloud. Take advantage of their power, scalability, flexibility and enduring efficiency and security features to get more out of data your way.

5

ENABLE NEW CAPABILITIES FOR YOUR BUSINESS

Right-size your processing power with AMD technology leadership

AMD EPYC Processors are optimized for the leading data analytics solutions to help you perform more analytics per node or per day. Our long-term product roadmap can help you keep your IT investment on the path of continuous innovation.

Continue reading for more technical detail

TECHNICAL DEEP DIVE

#1 ACHIEVE MORE, FASTER

- For NoSQL solutions, the AMD EPYC 7F53 can enable fast analytics and accelerate your business-critical insight, driving faster time to results with 60% higher performance on a single-socket solution compared to a dual-socket competitive solution. [MLN-069K](#)
- A 2x AMD EPYC 7543 powered server outperforms a 2x Intel® Xeon® Gold 6258R server by up to 25% on Hadoop Sort SPARK 1TB analytics. [MLN-051](#)
- As of June 22, 2021, AMD holds 24 World Records for Big Data Analytics applications.¹ A dual-socket AMD EPYC 7763 provides ~99.4% more memtier ops/sec throughput than a dual-socket Intel Xeon Gold 6258R. [MLN-052](#)

#2 ADDRESS FUNDAMENTAL DATA AND PRIVACY RISKS SIMPLY

- AMD Infinity Guard provides a modern multi-faceted approach to data center security with virtually zero impact on performance.
- It helps shield system memory from snooping in virtual and cloud environments without having to add costs or code.
- It also includes security features including the AMD Secure Processor, AMD Shadow Stack, Secure Memory Encryption (SME) and Secure Encrypted Virtualization (SEV), which all help decrease potential attack surfaces as software is booted and executed and processes your critical data.²

#3 FIND NEW EFFICIENCIES FOR SAVINGS

- A single-socket AMD EPYC 75F3 powered server provides 127% more TPC Express Benchmark™ HS v2 HSph @ 3 TB MapReduce framework and 72% better price/performance than a dual-socket Intel's Xeon Gold 6262V server on MapReduce framework. [MLN-070](#)
- A 1x 3rd Gen AMD EPYC 75F3 powered server has 1.19x the query performance at 41% lower cost per query than a 2x 2nd Gen Intel Xeon Platinum 8268 server, using TPC Benchmark™ H @ 1,000GB. [MLN-107](#)
- A dual-socket AMD EPYC 7763-based solution offers an estimated 36% lower three-year TCO than a dual-socket Intel Xeon Platinum 8380-based solution to deliver 10,000 units of integer throughput. [MLNCTO-003A](#)

#4 CREATE FAST AND FLEXIBLE DEPLOYMENTS

- AMD EPYC processors are compatible out of the box with major x86 applications whether on premises or hosted by one of the major cloud providers.
- Get started quickly with Big Data-optimized cloud instances including AWS R5a/R5ad, Google Cloud N2D-highmem and N2D-highcpu, IBM Cloud Bare Metal with AMD EPYC 7642, Microsoft Azure Lsv2 and Oracle Cloud.

#5 ENABLE NEW CAPABILITIES FOR YOUR BUSINESS

- 2nd and 3rd Gen AMD EPYC processors help multi-threaded applications scale to achieve exceptional throughput with up to 64 cores and 256MB L3 cache per socket.
- AMD EPYC Processors offer up to 4TB of memory over 8 double-data-rate channels per socket, providing outstanding performance for the most demanding data analytics workloads both today and tomorrow.
- Two 2nd or 3rd Gen AMD EPYC Processors offer up to 160 PCIe® Gen4 lanes, with 3rd Gen EPYC featuring synchronized clocks between the fabric and memory, all driving better, faster time to results.

LEARN MORE AT [AMD.COM/EPYC](https://amd.com/epyc)

For footnote details see amd.com/en/claims/epyc.

- 1 For a complete list of world records see <http://amd.com/worldrecords>.
- 2 AMD Infinity Guard features vary by EPYC™ Processor generations. Infinity Guard security features must be enabled by server OEMs and/or cloud service providers to operate. Check with your OEM or provider to confirm support of these features. Learn more about Infinity Guard at amd.com/en/technologies/infinity-guard. GD-183

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