GET PEAK PERFORMANCE FOR CLOUD, ENTERPRISE AND AI

WITH AMD EPYC™ 9005 SERIES PROCESSORS

Servers based on AMD EPYC 9005 Series processors offer **leadership performance, density and efficiency** to support today's most demanding data center initiatives.

EXPLOSIVE DATA CENTER GROWTH AHEAD

The global AI hardware market is expanding, with an annual **growth rate of 24.5%**, from $53.71 billion in 2023 to a projected $473.53 billion by 2033.[1] CPUs have a key role in AI processing in data centers.[2]

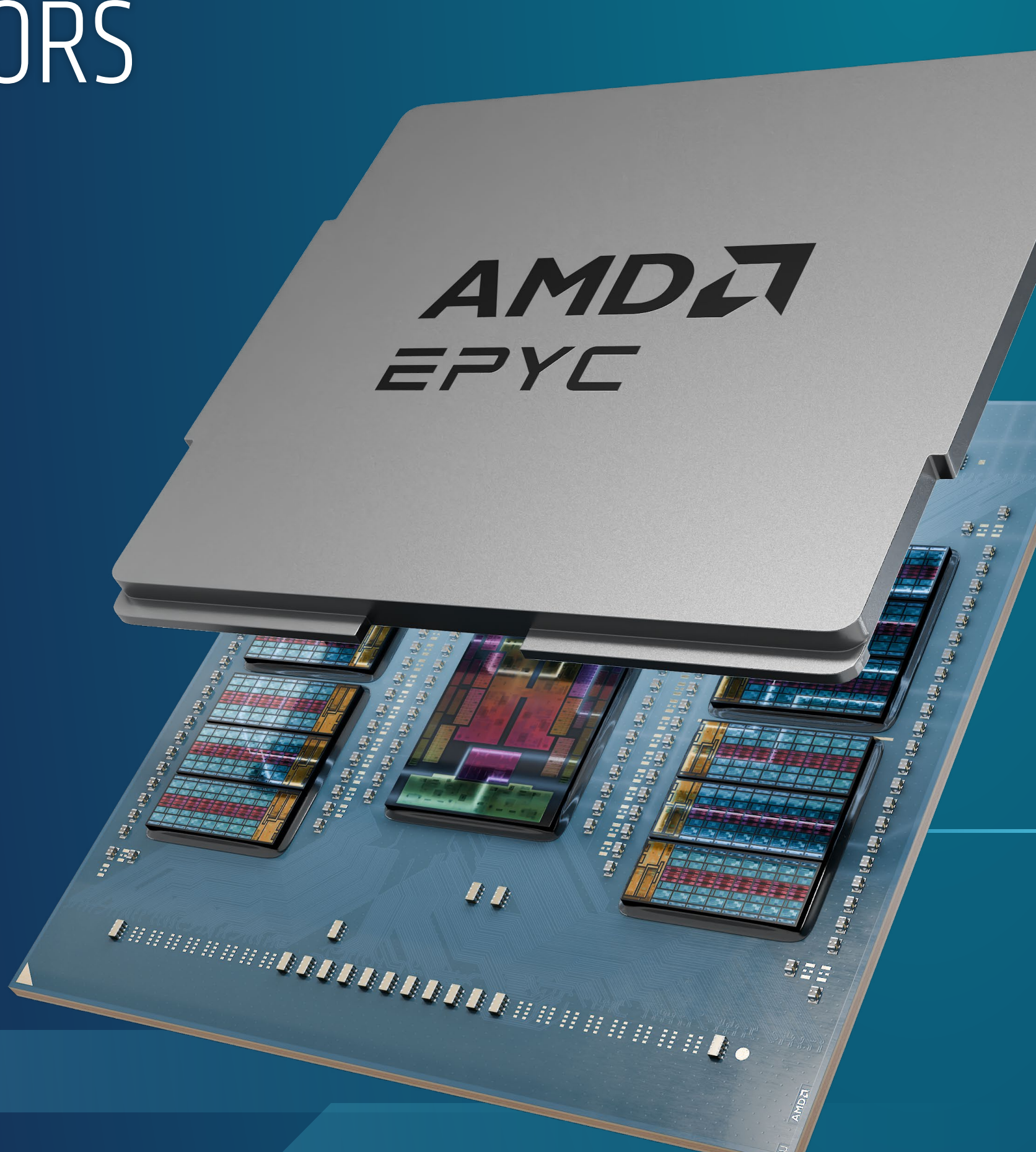
As the demand for more computing performance swiftly expands, data-center efficiency is critical. Electricity consumption from data centers, AI and the cryptocurrency sector could **double by 2026.**[3]

24.5% per year growth rate

2x electricity consuption by 2026

AMD EPYC™ 9005 SERIES PROCESSORS

THE CHOICE FOR ADVANCING *AI AND ENTERPRISE* APPLICATIONS



Use AMD EPYC 9005 Series-powered servers to drive everything from corporate AI enablement and large-scale hybrid cloud buildouts to business-critical enterprise applications.

PROPEL YOUR AI

Outstanding performance

Built for Optimal AI Performance

AMD EPYC 9005 Series processors are designed to deliver **outstanding performance** with their high-core count and support for high memory and I/O bandwidth. Also, high frequency models excel at optimizing GPU-accelerated system performance by efficiently managing data preparation and post-processing tasks.

~2.7x Inference throughput

Faster than the Competition in AI Inference

Achieve **~2.7x the inference throughput** when running extreme gradient boosting with the Higgs boson data set (XG Boost) on servers with two 192-core AMD EPYC 9965 processors compared to those with two 64-core Intel® Xeon® 8592+ CPUs.[9xx5-010]

~15% Faster training time

Optimize GPU System Performance as an AI Host Processor

Deliver **~15% faster training time** when hosting 8 GPU accelerators with two high frequency AMD EPYC 9575F CPUs compared to two Intel® Xeon® 8592+ CPUs running Llama 3.1-8B.[9xx5-015]

SPEED ENTERPRISE APPLICATIONS

2.68x Higher throughput

Leadership Integer Performance

Expect **2.68x higher throughput** when comparing two-socket servers using 192-core AMD EPYC 9965 CPUs to 64-core Intel® Xeon® 8592+ CPUs running SPECrate®2017_int_base.[9xx5-002B]

2.2x the Multi-JVM critical jOPs

Business Workload Supremacy

Get **2.2x the Multi-JVM critical jOPs** when using two-socket servers based on 192-core AMD EPYC 9965 CPUs vs. 64-core Intel® Xeon® 8592+ CPUs running SPECjbb®2015-MultiJVM Benchmark®.[9xx5-060]

BUILD MORE EFFICIENCY INTO YOUR COMPUTE

UP TO **86%** Fewer servers

UP TO **69%** Less power

Consolidation and Modernization

Replacing 100 old 2P Intel® Xeon® 8280 CPU-based servers with ~14 new AMD EPYC 9655 CPU-based servers can provide an estimated 39,100 units of integer performance while using **up to 86% fewer servers and 69% less power.** Achieving the same performance level would require 35 2P Intel® Xeon® 8592+ CPU-based servers.[9xx5-001B]

LEVERAGE A STRONG ECOSYSTEM

x86 Software compatibility

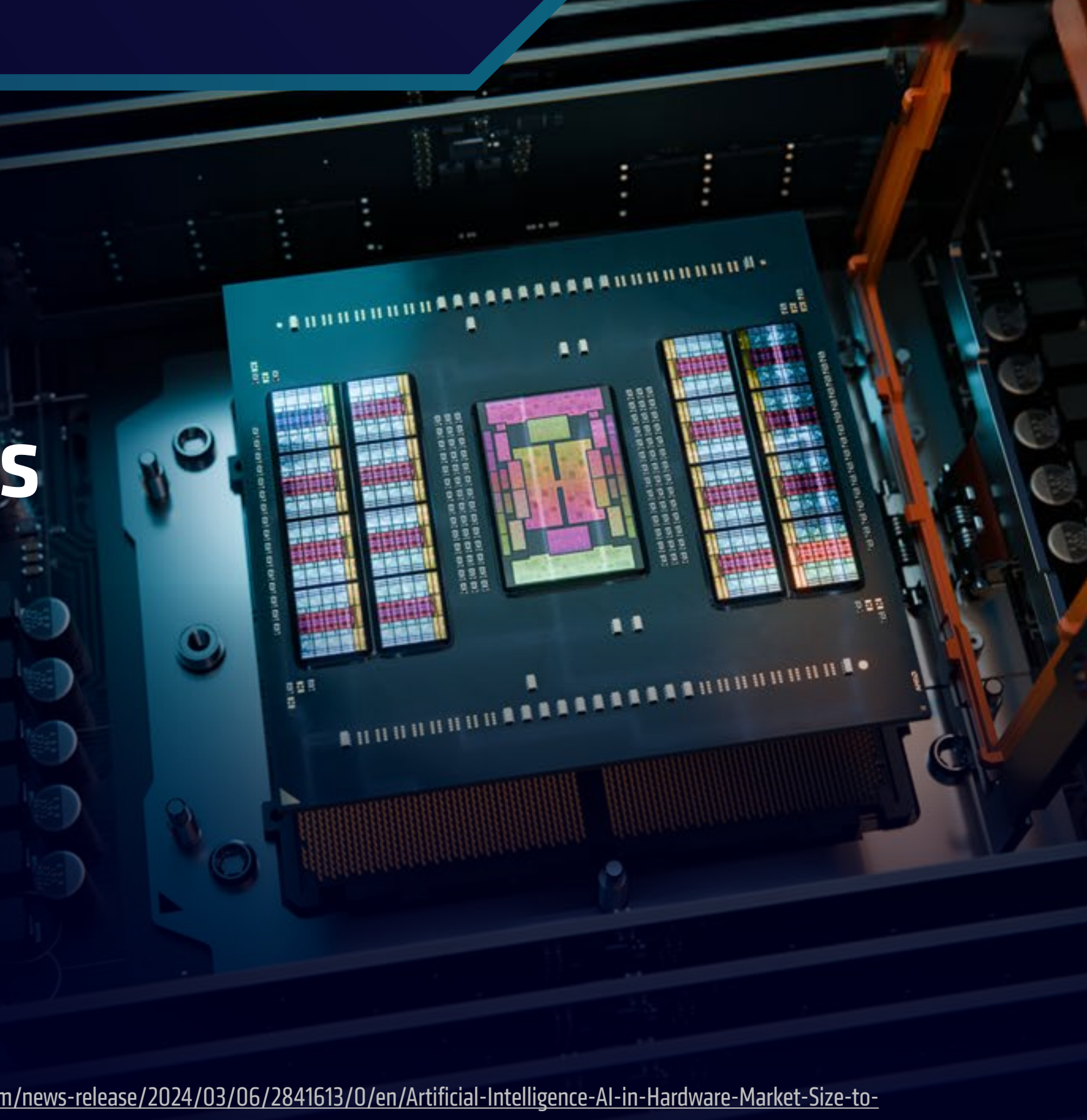
x86 Compatibility

AMD EPYC 9005 Series processors have **x86 software compatibility,** providing easy integration into your existing infrastructure.

Broad applicability

Widespread Industry Adoption

Tailored for various environments including cloud, hyperscale, on-premises and SAAS, AMD EPYC 9005 Series processors enable **broad applicability** across industries.



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[1] GlobeNewswire, "Artificial Intelligence (AI) in Hardware Market Size to Reach USD 473.53 Bn By 2033," March 6, 2024, https://www.globenewswire.com/news-release/2024/03/06/2841613/0/en/Artificial-Intelligence-AI-in-Hardware-Market-Size-to-Reach-USD-473-53-Bn-By-2033.html

[2] The Futurum Group, "AI Chipset Market Share Analysis, 5-Year Forecast," August 19, 2004, https://www.businesswire.com/news/home/20240819523529/en/Futurum-Intelligence-Releases-AI-Chipset-Market-Share-Analysis-5-Year-Forecast-Revealing-Vendor-Revenue-and-Growth

[3] International Energy Agency, "Electricity 2024, Analysis and Forecast to 2026," https://iea.blob.core.windows.net/assets/6b2fd954-2017-408e-bf08-952fdd62118a/Electricity2024-Analysisandforecastto2026.pdf, page 8.

For details on the claims used in this document, visit amd.com/en/legal/claims/epyc.

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