AMD

3 MYTHS

ABOUT 2-SOCKET vs. 1-SOCKET SERVERS

AMD EPYC™ processors have changed the server equation. Now, one can equal two when it comes to single- vs. dual-CPU performance and efficiencies. Here are other perceptions being challenged by AMD innovation.

1 MYTH

Two-socket servers provide redundancy

REALITY

If one of the dual CPUs fails, typically the whole system shuts down and is unlikely to reboot

AMD EPYC™ PROCESSORS

One socket, multiple efficiencies

Invest in the processing power you actually need to help improve cost, power, and space efficiencies, with innovative solutions that support up to 6 nodes in a 2U configuration. Integration is easy with the full x86 compatibility of AMD EPYC™ processors.

2 MYTH

Fewer sockets mean lower performance, I/O, or memory capacity

REALITY

One-socket servers can deliver two-socket performance and features in a single CPU

AMD EPYC™ PROCESSORS

Performance comparable to the competitor with half as many CPUs

A single-socket server powered by an AMD EPYC™ processor delivers performance comparable to a dual-socket server based on 2nd Gen Intel® Xeon® processors and, in some cases, even their latest 3rd Gen processor.[1,2]

3 MYTH

Two sockets are always better than one

REALITY

Your server should be right sized for the job based on workload, users, transactions, etc.

AMD EPYC™ PROCESSORS

More choice to match your workload

With one-socket servers, as well as two-socket, AMD EPYC™ powers a range of solutions for databases, analytics, HPC, cloud, and enterprise applications. EPYC processors have set more than 200 world records on industry-standard applications and benchmarks.[3]

3RD GEN AMD EPYC™ PROCESSORS

Best server CPU performance, per socket, per core with leadership TCO value compared to competition[4,5,6,7]

60%
Higher Hadoop® Sort throughput[2]

~47%
Higher integer application throughput per socket[5]

~98%
More ANSYS® LS-DYNA® per-core jobs/day on 3cars[8]

TOTAL COST OF OWNERSHIP: AMD EPYC™ 7763 vs. Intel Xeon® Platinum 8380

~33%
Fewer servers[7]

~36%
Lower 3-year TCO[7]

~42%
Lower power cost[7]

~50%
Less space[7]

Discover how you can take advantage of single-socket servers powered by AMD EPYC™ Processors.

LEARN MORE

AMD EPYC

[1] See https://www.amd.com/en/claims/epyc#faq-MLN-104A
[2] See https://www.amd.com/en/claims/epyc#faq-MLN-069K
[3] As of 6/22/2021. For a complete list of world records see http://amd.com/worldrecords
[4] See https://www.amd.com/en/claims/epyc#faq-MLN-016A
[5] See https://amd.com/en/claims/epyc#faq-MLN-110
[6] See https://www.amd.com/en/claims/epyc#faq-MLN-057A
[7] See https://www.amd.com/en/claims/epyc#faq-MLNTCO-003A
[8] See https://www.amd.com/en/claims/epyc#faq-MLN-049A

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