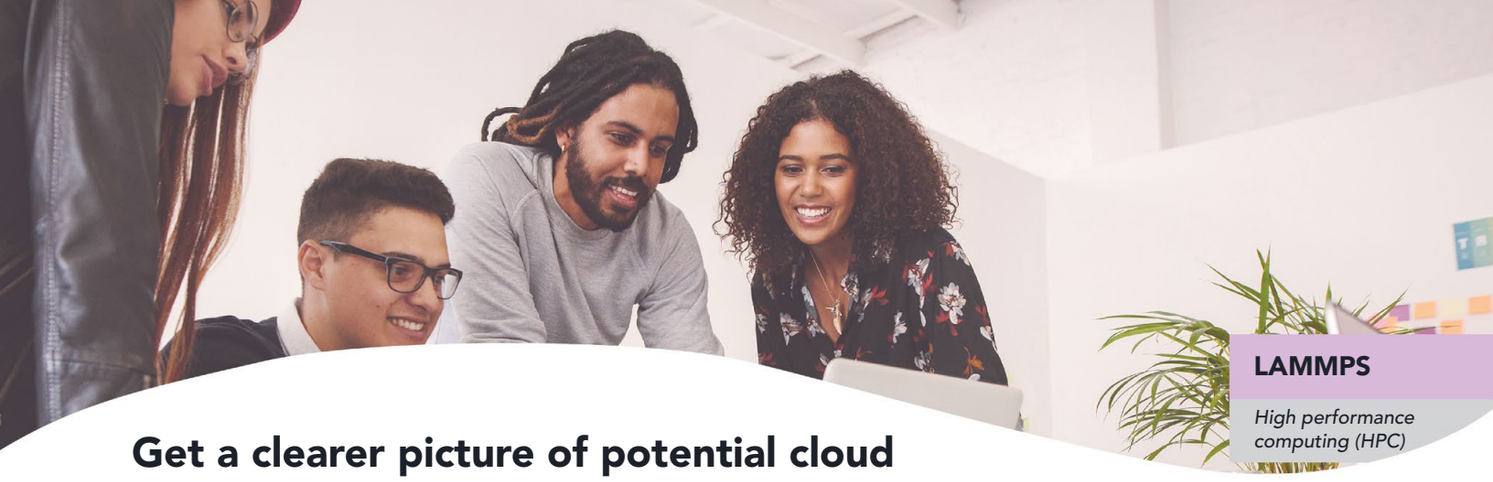


LAMMPS

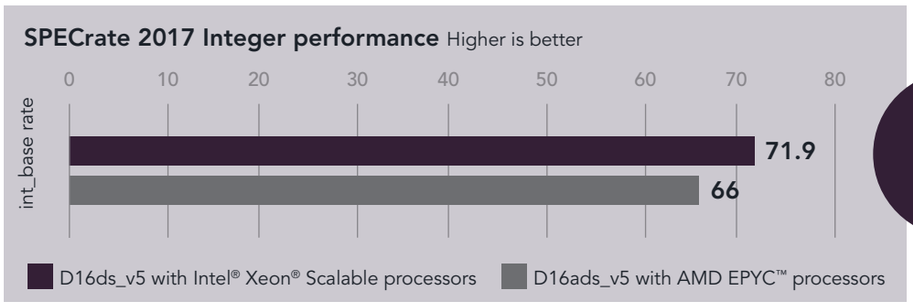
High performance computing (HPC)

Get a clearer picture of potential cloud performance by looking beyond SPECrate 2017 Integer scores *with LAMMPS*

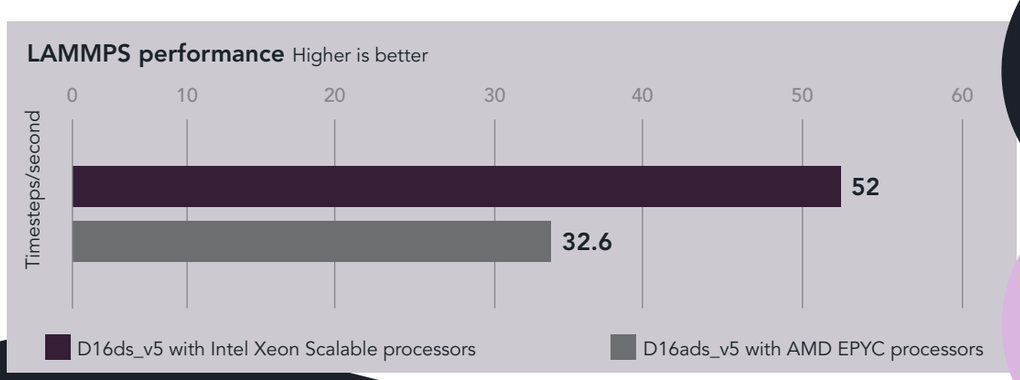
When we ran LAMMPS workloads on two Microsoft Azure VMs, the performance differences varied considerably from SPECrate 2017 Integer scores

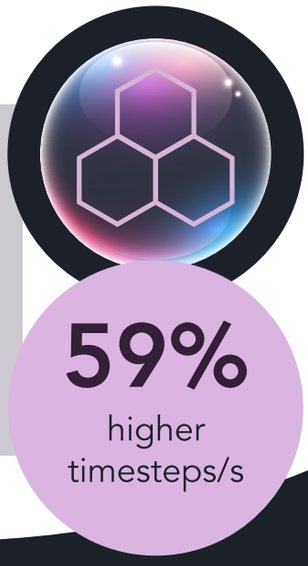
What's the best way to gauge cloud instance performance? Using an industry-standard benchmark such as SPECrate® 2017 Integer can deliver good compute performance data, but it may not paint the same picture as workloads more directly representative of your applications.

Running SPECrate 2017 Integer—which uses a broad range of applications that target the processor, memory, and compilers—we saw the following results on the Azure VMs we tested:



Large-Scale Atomic/Molecular Massively Parallel Simulator (LAMMPS) is an open-source molecular dynamics tool. Its Lennard-Jones model benchmark, which simulates atomic fluid with Lennard-Jones Potential, stressed the VMs' processors. We saw the following results from this test:





Why test with LAMMPS?

Organizations that do HPC work involving molecular dynamics, physics simulations, and finite element analysis—or other types of modeling, simulation, and visualization—could get a better idea of how VMs might perform by looking at LAMMPS benchmark results.

Get the bigger picture when you branch out to specific workloads.

Learn more about the other real-world workloads we ran at https://facts.pt/odi9nGQ

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