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

with MySQL

When we used HammerDB to run MySQL OLTP workloads on two Microsoft Azure VMs, the performance differences varied considerably from SPECrate 2017 Integer scores
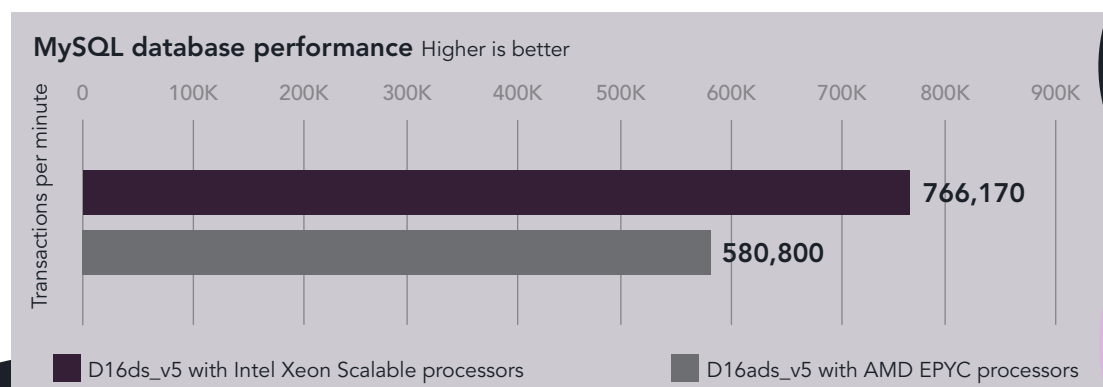
What's the best way to gauge cloud instance performance? Using an industry-standard benchmark such as SPECrate® 2017 Integer can deliver good compute performance data, but it may not paint the same picture as workloads more directly representative of your applications.

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:

SPECrate 2017 Integer performance Higher is better

int_base rate

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |

71.9
66

■ D16ds_v5 with Intel® Xeon® Scalable processors   ■ D16ads_v5 with AMD EPYC™ processors
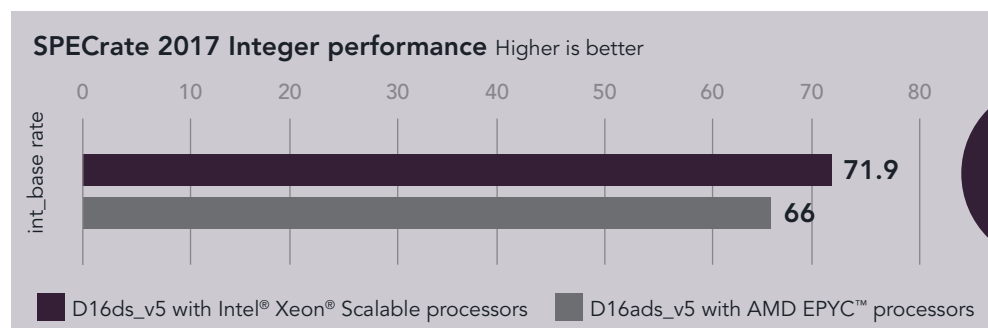
8%
faster int_base rate

Transactional databases are common applications that organizations use for retail and other critical workloads. HammerDB, an open-source tool that assesses database performance, can run on many leading databases, including Oracle® Database, Microsoft SQL Server, PostgreSQL®, and MySQL™. Below, we show transactional workload results on a MySQL database:

MySQL database performance Higher is better

Transactions per minute

| 0 | 100K | 200K | 300K | 400K | 500K | 600K | 700K | 800K | 900K |

766,170
580,800

■ D16ds_v5 with Intel Xeon Scalable processors   ■ D16ads_v5 with AMD EPYC processors

32%
more transactions per minute

Why test OLTP databases?

Businesses run OLTP databases to power ecommerce sites, keep hotel or airline reservations, facilitate financial transactions, and more. By assessing which cloud VM type can support more database transactions, organizations can feel more confident in handling database users at peak times—and could ultimately reduce the number of VMs they must support and manage.

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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