



Get 1.53x More MySQL™ Performance by Selecting Newer Microsoft® Azure® Edv4 Virtual Machines Featuring 2nd Gen Intel® Xeon® Scalable Processors

Microsoft Azure Edv4 Virtual Machines Feature Intel Cascade Lake Processors.

Handle More MySQL Transactions and Achieve Greater Performance per Dollar with Azure Edv4 VMs, Featuring 2nd Gen Intel Xeon Scalable Processors

If your company is one of the many that are turning to public cloud platforms to run your critical database workloads, you face a number of decisions. Not only must you determine which provider to use—you also have a choice between older virtual machines featuring previous-Gen processors and newer VMs featuring 2nd Gen Intel Xeon Scalable processors. As with every business decision, getting the most for your money is crucial.

In a series of MySQL database tests comparing Azure virtual machines on a TPC-C-like workload, new Edv4 VMs enabled by 2nd Gen Intel Xeon Scalable processors outperformed older Ev3 VMs. Compared to similarly configured older VMs, new Edv4 VMs performed up to 1.53x more work. This improved performance, combined with pricing that is only 8.3 percent higher than that of older Ev3 VMs, means that the newer Edv4 VMs can deliver as much as 1.41x the performance per dollar. That translates to a greater return on your cloud investment.

Improve Performance by up to 1.53 times with New Azure Edv4 VMs

As Figure 1 shows, on a HammerDB TPC-C-like test workload, small and medium-sized Azure Edv4 VMs using 2nd Gen Intel Xeon Scalable processors delivered more than one and a half times the performance of their Ev3 VM counterparts. That means that two new Edv4 VMs would be able to do the work of three older Ev3 VMs.

MySQL/HammerDB Relative Gen-on-Gen Performance - Memory-Optimized Series VMs

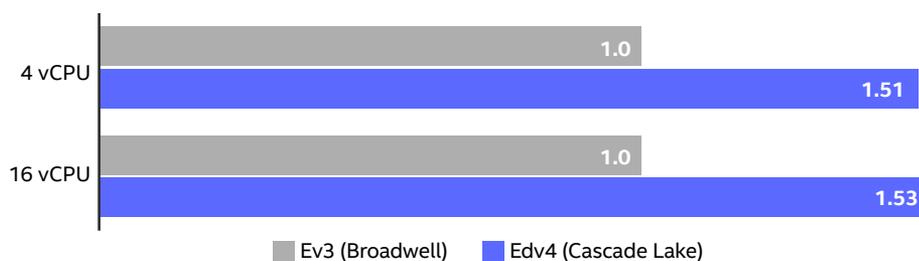


Figure 1. Normalized HammerDB test results comparing performance (in new orders per minute) achieved by the Edv4 VM to Ev3 VM at two vCPU counts. Higher is better.

**MySQL**



Up to 1.53x more MySQL work
than Ev3 VMs



Spend only 8.3% more
than for Ev3 VMs



Up to 1.41x more MySQL work per dollar
than Ev3 VMs

Get the Power of 2nd Gen Intel Xeon Scalable processors for Only a Modest Price Increase

We looked at the pay-as-you-go pricing per hour for the four Azure virtual machine instances we tested in the US East2 Region as of October 27, 2020. For small and medium-sized VMs, moving to new Azure Edv4 VMs enabled by 2nd Gen Intel[®] Xeon[®] Scalable processors, increased the hourly price by only 8.3 percent, a bargain in light of the 1.53x performance improvement the new Edv4 VMs achieved.

Enjoy 1.41x Greater Performance per Dollar with New Azure Edv4 VMs

We took the performance results from Figure 1 and divided by the hourly pay-as-you-go pricing for the four Azure VM instances tested to determine the performance-per-dollar rate for each. As Figure 2 shows, trying to cut corners by choosing older Azure instances would be a false economy: new small and medium-sized Azure Edv4 VMs featuring 2nd Gen Intel Xeon Scalable processors delivered around 40 percent more MySQL database work for each dollar you would spend. This would let you support that many more users without spending extra, or would allow you to complete a fixed amount of work with fewer VMs.

MySQL/HammerDB Relative Gen-on-Gen Performance Per Dollar - Memory-Optimized Series VMs

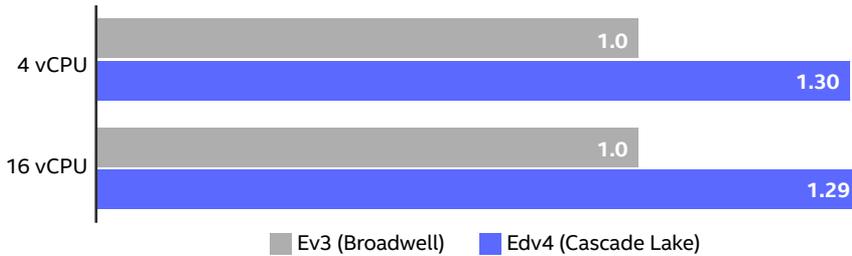
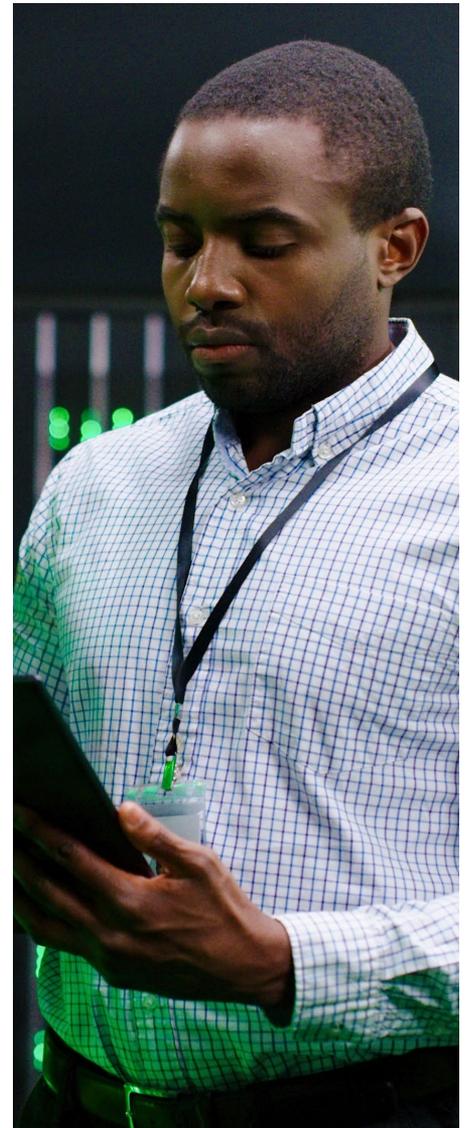


Figure 2. Normalized comparison of the performance per dollar of the Edv4 VM to Ev3 VM at two vCPU counts, based on HammerDB TPC-C-like test results.

Learn More

To begin your MySQL database deployments on Azure memory-optimized virtual machines, with 2nd Gen Intel Xeon Scalable processors, visit intel.com/microsoftazure.



Performance varies by use, configuration and other factors. Learn more at <https://intel.com/benchmarks>.

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